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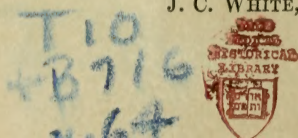
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DR. WARE'S LECTURES ON GENERAL THERAPEUTICS.

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LECTURE I.—Continued from page 497, Vol. lxiii.

HAVING endeavored to explain these two distinct methods of procedure, we may next consider the manner in which we are to apply them in the treatment of disease. Although so distinct in principle from each other, and although it is so important that this distinctness should be kept in view, they are not at all, as I have already stated, incompatible, and may in fact be both relied upon in the treatment of the same case. Such, indeed, is the character of almost all medical practice, and the combination is a perfectly legitimate one, if care be only taken to distinguish the principle upon which each is resorted to. Thus, a physician may believe that pneumonia will, in a large proportion of cases, pass on through its natural course to a favorable termination, without the aid of art; but he may also believe that the establishment of the specific effect of mercury will arrest this course, will prevent a protracted disease, and perhaps save life. He may fail to establish the mercurial influence, but he may still hope that the effort of nature will, notwithstanding, be sufficient. Now this is a perfectly rational mode of procedure, and a perfectly consistent one, if mercury have this power. Whether it has or has not, is quite another question. To him who believes it has, its employment is consistent with a general reliance on the powers of nature in disease.

In accordance with the first method, which relies mainly upon the sanative powers of the system, the object is not the direct removal of disease, and consequently no formal attempt is made to do it. It assumes that the system is constantly making an effort for this purpose. Different diseases stand in a different relation to this method, and this difference requires to be considered in their treatment. In one class of cases recovery can only take place by going through with certain processes, which are

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definite in character and limited in duration. In another class this definite course and limited duration are wanting, but still recovery takes place, at some indefinite period, by a natural method. In still another class of cases, though their character is such as to forbid recovery, the same sanative principle is still at work, struggling ineffectually, and yet bringing about periods of partial relief, modifying and limiting, to a certain extent, the processes of disease, and in a few exceptional cases protracting life for a long period, or even bringing about a partial recovery. Of the first class of cases, we have the most striking examples in the exanthemata, in continued fevers, and in acute inflammations. To these has been happily applied, by Dr. Jacob Bigelow, the very expressive designation of "self-limited diseases." Of the second class, are cases of neuralgia, dyspepsia, many affections of the liver and uterus, and chronic inflammations. Of the third, phthisis and cancer furnish us with examples which are only too familiar. It is not pretended that a perfectly-defined line can be drawn between these classes; and, indeed, it may be contended that, in strictness, all cases that ultimately recover by the sanative process, however protracted and irregular their course, are, in fact, "self-limited." Still, this distinction is founded on a real difference of character, for the limitation of dyspepsia is a very different thing from the limitation of typhoid fever.

The self-limited diseases are those to which the natural method is peculiarly applicable, and require least to be subjected to any interference with their course. They are certain to come to their termination, either in death or recovery, when they have passed through the several stages in which they consist. But it is not to be understood that their course is precisely identical, or that the term of their continuance is precisely the same. It is nearly so in some, as in measles and smallpox, but in typhoid fever and pneumonia there is in this respect a very considerable latitude. The limitation is only definite as to each individual case. It may be longer or shorter in different cases, and it may be varied as the consequence of influences acting upon the patient in their course. A disease of this kind is limited in much the same way as human life is limited. There is a certain period which we recognize as its average length, and thus it is self-limited. But every individual enters upon life, probably, with that in his constitution which determines to what proportion of this duration, under ordinary circumstances, he shall attain; so that one man may be born to die in infancy, another in youth or middle age, and still another to continue through his full term. But, besides this original difference, the term of life may also be varied by exposure to favorable or unfavorable circumstances during its continuance. It is just so in self-limited disease.

The tendency of opinion at the present day is to an increased, and sometimes to an exclusive, reliance upon nature in disease.



Confidence in nature has increased; confidence in measures of interference, especially in drugs, has diminished. This, which is a great change of sentiment, is partly, perhaps, a reaction from a period of excessive medication, but it is mainly the mature and deliberate result of observation and experience, founded upon an improved knowledge of the laws of disease. It may seem to you, if this be so, that the office of the physician is at an end, and that we may as well retire from the field. But this is not so. The office of the physician will continue as necessary as before. He can still render essential service to the sick. I shall even endeavor to show you hereafter that there are few cases in which direct medical measures may not be advantageously employed, though upon a principle and for a purpose different from those which have usually guided them. But whether with such measures, or without them, a case of disease may be managed well, and it may be managed ill. There is for every case good treatment and bad treatment. He only is capable of deciding with regard to this, who is acquainted with the nature, the tendencies and the laws of disease and recovery. As long as there is among mankind suffering from disease and the fear of death, there is no danger that the relation of physician and patient will become obsolete, or will cease to be regarded as one of the closest and most beneficent that one human being can sustain to another.

If, then, a reliance upon the sanative principle in the system is to lie at the foundation of medical practice, the inquiry at once suggests itself, in what way is it to be connected with and made the basis of our treatment. In order to explain this, we must first learn why it is that nature is so often defeated. If in all cases attempting to remove the evil of disease, why is she not always successful? Why does she so often prove incompetent to the task? Why does death so often take place, and why is recovery so often protracted? Now as the office of the physician, in a vast proportion of cases, is simply to assist and promote the attempt of nature to cure, in order to this it is essential for him to know what are the circumstances which impede, which prevent the success of this attempt. She may fail from inevitable causes, but she may also fail from removable causes, and if we know these causes we may prevent the failure.

We next proceed, then, to consider these causes.

Recovery is often prevented by the mere *severity or violence of the disease*. This will be best illustrated by what takes place in a case of external injury, for the natural effort follows the same laws in this as it does in disease. Thus, a very severe external injury may destroy life at once, or after a short and partial reaction, as in a gun-shot wound; or the processes for restoration may be established, go on for a time, more or less perfectly, and then the system sink under the effort; or these processes may go on to a happy termination in restoration. In various diseases, such as

scarlatina, and in many cases of poisoning, as from opium, precisely the same course of things may be observed.—A local inflammation, as in pneumonia, may be so violent as to overbear this counteracting effort of the system, and either destroy life or inflict an irreparable injury on the organ affected.

The simple *extent of a disease* which in its proper character is not severe, may be also such as to have the same effect. This we see in very extensive burns or scalds, which are quite superficial and yet prove fatal. A remarkable illustration is also found in the formidable nature of inflammations of the peritoneum, as compared with those of the pleura. A limited inflammation of either of these membranes is apparently a trifling malady that nature disposes of without difficulty. But an extensive inflammation of the peritoneum is one of the most formidable maladies we have to encounter, whilst an inflammation of the pleura, unless accompanied by tubercular or other disease, is little dreaded. This difference probably depends upon the great extent of the former membrane as compared with the latter, and not upon the nature of the disease by which they are affected.

The *character of the organ affected* may constitute another impediment. Those organs whose functions are immediately necessary to life, as the brain, heart or lungs, struggle at a disadvantage with an amount of disease which in less important ones would be successfully contended with. The system cannot well bear with the suspension or impaired condition of their function for so long a time as is required for them to go through with the necessary processes. Membranous croup affords a happy illustration of the same kind. The inflammation in which it consists is not in itself formidable, either in kind, degree or extent, for when it attacks the palate, the tonsils or the pharynx, and does not go beyond them, it is usually recovered from without difficulty. But in the larynx it interferes with the functions of the lungs, and the patient dies before there has been time for those processes to be accomplished which would result in recovery. It sometimes happens that by an opening into the trachea, when the disease does not extend into the lungs, this impediment is removed, and the disease gains time to go through with the processes which are necessary to restoration.

The *peculiarity of the structure of an organ* may stand in the way of its complete restoration. The law of restoration is a general one; it has no respect for the particular necessities of particular organs. When inflammation attacks the eye or the heart, it deals with it precisely as it would with the testicle or the skin. If the testicle is inflamed and left with adhesions of its membrane, or organized lymph in its substance, it is a matter of little moment. Its function goes on as before. On the contrary, when the same thing happens inside or outside of the heart, although the recovery from inflammation may be as complete, its function is im-



paired forever. So, too, a little scar or change of texture, left by inflammation, which might not be noticed in the skin or cellular membrane, permanently destroys the transparency of the eye.

The *state of health in which disease occurs* is a condition having effect on its progress. Where this is impaired, whether from a mere feebleness of life—from an imperfect performance of any of the functions—or from the actual presence of some chronic disease—the system undertakes the contest at a disadvantage, and this is manifested in various ways according to the nature of the impeding cause. This is so obvious that it hardly needs illustration. If the condition of an individual be such that the functions of health have been imperfectly performed, it were to be expected that the functions of disease would also be imperfectly performed. As the processes of disease are exhaustive, and require a certain amount of power for their maintenance, a want of power at the beginning may protract or defeat recovery. A very striking illustration of this kind of influence is found in the effects which the presence of chronic disease—such as cirrhosis, albuminuria, organic disease of the heart, diabetes and chronic diarrhœa—has upon the character and course of acute diseases in the same subject. The sanative effort of nature is manifestly the same as in a healthy person, but it operates with diminished power and with inferior materials. It consequently often happens that, instead of a perfect reparation of the diseased part, the work is done so imperfectly as either to leave a new disease in the organ affected, or to fail in preventing a fatal termination.

An analogous effect is produced by *reducing causes operating in the course of a case*; such as imperfect nursing, and insufficient, improper or excessive nutrition; various states of mind, either of a violent or depressing kind, especially the latter—as extreme apprehension as to the event, the occurrence of great affliction, pecuniary embarrassment. But, even more than these, it is to be feared that injudicious and excessive medication has often embarrassed the beneficent efforts of nature. Large losses of blood, violent vomiting and purging, a perseverance in disagreeable, painful and irritating remedies, have doubtless converted many mild cases into severe ones, and, though I almost hesitate to say it, some severe into fatal. The effect of all these is not manifest at first, but may even seem to be beneficial. Thus, large and repeated bleedings in pneumonia, and violent and continued vomiting in membranous croup, may undoubtedly relieve temporarily the urgent symptoms of these complaints—and I do not mean to say that, in moderation, they may not sometimes be positively beneficial—but, as they have been too often practised, they diminish the powers by means of which the patient is to be carried safely through, and interfere with those natural processes upon the successful issue of which recovery must ultimately depend.

In an analogous way the *state of the constitution* of the patient,

whether this be its original condition or an accidental one, exercises a wide influence. The difference among men in this respect is not at all to be accounted for. It is one of the unexplained mysteries of life. It is manifested, among other ways, by the different manner in which they are affected by the causes of disease—the different manner in which they undergo disease—and the different effects produced by remedies. It is not too much to say that in all these respects no two individuals are precisely alike, and no single individual precisely alike at different times. One man receives a cut upon the head; it heals up in a few days with no bad symptom, or with no symptom at all. In another, with a similar injury, the wound inflames and suppurates—the whole system is disturbed—there is loss of appetite, fever and delirium; he recovers only after a tedious and exhausting process. In a third, erysipelas seizes the scalp, the healthy processes are arrested, the disease extends, affects the brain and destroys life. So, too, a grain of opium throws one man into a quiet and delicious sleep, from which he wakes, in the morning, invigorated and refreshed; it delivers over another to the horrors of persistent watchfulness and waking visions, whilst in the morning he rises only to experience a day of nausea, faintness, vomiting and headache.

It is well known that where there is a gouty, a scrofulous, a rheumatic, or a syphilitic taint of the constitution, it not only manifests itself by attacks that are its peculiar result, but may modify also the character of ordinary diseases and interfere with their recovery. So, too, epidemic states of constitution present themselves in large bodies of people at once, not only causing the prevalence of particular diseases, but giving to them in different years a particular character—mild and tractable in one year—obstinate and fatal in another. This happens with regard to the exanthemata, continued fevers, and inflammations of the important viscera.

This subject, namely, the relation of the state of the constitution to the causes and phenomena of disease, is among the most important which can engage the attention of the practitioner in connection with treatment. It is the condition of the patient in this respect which gives rise to all those differences that we observe in different persons as to their liability to contract disease, the manner in which disease affects them, and the consequent management they require. It is to be recollected that the causes acting on the economy, to which we have reason to attribute disease, are not, in themselves alone, productive of its character. In every case of causation two factors must be always engaged. There is the cause acting, and the subject acted upon. The result will depend upon their mutual relation. If the cause remain the same, but the subject be changed, the result must be different. For example, exposure to cold in one subject produces catarrh, in others sore throat, croup, pneumonia, pleurisy or rheumatism. From the same



food one man will have an attack of dyspepsia, another of headache, another of colic, and another of diarrhœa. The subjects are different in each case. Why does typhoid fever exhibit such different symptoms in different patients? The cause is the same in all, but the state of the system is not the same in all. The peculiar character, the severity, the tractability of this and all other diseases, have little to do with the cause which produces them, but depend mainly upon the condition in which it finds the patient; so that the assemblage of the phenomena of each case expresses or indicates the state of the constitution in which they have arisen. We may not be able often to interpret properly such indications, but so far as we can, they furnish our best guides in treatment, at least so far as this is based upon the principle of natural recovery.

An occasional result of a peculiarity of constitution is a disproportion between the importance of the original affection and the disturbance created in the system by its presence. Commonly, these maintain a due relation to each other. A severe disease produces a violent irritation in the system; a mild disease a slight one. But this is not always so, and it may be even the reverse. There are patients with great susceptibility of constitution, in whom a very slight local disease may bring on a very frequent pulse, a hot skin, nausea, vomiting, delirium, loss of appetite and digestion, in fact a general disturbance of all the functions; there are those, on the other hand, where there is very little sympathy with local disease, and—even though it be considerable—the pulse are quiet, the skin cool, the tongue unchanged and the capacity for taking and digesting food continues almost as in health. In the first case, the processes of recovery are interfered with; they go on hesitatingly, irregularly, imperfectly—in the other, steadily and successfully. There are other varieties in the mode in which the system is affected, having a similar effect, but this statement is, at present, sufficient.

The *continuance of the operation of those causes which have engendered disease* also interferes with recovery—as in fevers, the exposure of the patient to filth and foul and confined air; in dyspepsia, the perseverance in erroneous and improper diet, and in insufficient exercise; in all diseases of drunkards, a continuance in their habitual indulgence. The circumstances under which the patient endures disease has also its influence—as with bad or insufficient nourishment, foul or confined air, too much heat, too little heat, and bad nursing in general.

It will sometimes happen in disease, that a *secondary or subordinate symptom* may become disproportionately violent, and assume the principal part in the case. It may, in fact, not only be a prominent symptom, but, from its severity, actually constitute the principal source of danger, perhaps the only one. Of this, we have many striking and instructive examples. Thus it is not uncommon for convulsions to supervene in the disorders of infants

and children, even where there is no connexion of the original condition with the organs from which this symptom proceeds. This is a grave complication, and may destroy life, where there would have been no danger from the primary affection.—In very moderate disorders of nervous females, secondary symptoms, hysterical in their real character, affecting the heart, lungs, or stomach, may invade the patient, and envelop in great obscurity the original character of the case, so closely do they resemble those of an absolute affection of the same organs.—No examples, however, are more striking than those which occur in persons who have been addicted to excess in spirituous liquors. In a patient of this description, laboring, for instance, under inflammation of the lungs, even of moderate severity, nausea, retching and vomiting will take place in so violent a degree, and so obstinate in their continuance, that the irritation and exhaustion they occasion prove a serious, and sometimes an insurmountable, obstacle to recovery. Of the same character is sometimes the affection known under the name of delirium tremens. This may supervene on any considerable disease in drunkards, as pneumonia, typhoid and dysentery, or after an external injury. But whatever the original malady, its symptoms are entirely merged in the new one, and its peculiar characteristics entirely lost. The patient, though exhausted by the first attack, and confined to his bed as its consequence, rises from it, becomes able to make the most violent exertions, and exhibits almost preternatural strength, and yet, on the subsidence of the delirium, tremors, and watchfulness, he is left in a state of greater weakness than before, and finishes the course of disease.

The efforts of nature, in promoting recovery, are also impeded by all *causes which exhaust the patient's strength; interfere with any important function, or inflict suffering, or even produce merely discomfort or uneasiness.* Of this description are severe and long-continued pain, protracted watchfulness, deficient nourishment, any unnatural condition of the alimentary canal, deficient secretion, or insufficient discharge, of urine. No inconsiderable part of the management of many cases consists in a careful attention to the condition of the patient in these, and many other similar particulars.

It follows, as almost a necessary consequence, that, in the same way, *medical interference* may prejudice recovery, especially where, from a want of a correct appreciation of the powers of medicine, and the limits of art, objects are aimed at which are, in their nature, not capable of being accomplished; as where the physician attempts to break up typhoid fever by continued nausea and vomiting, purging, &c.; to cure acute rheumatism by large and repeated bleedings; to put a stop to membranous croup by bleeding, nausea, vomiting and blisters; or to interfere by active treatment in the advanced stage of any disease. Injury may be done



by a false estimate of the severity of a case, and a consequent adoption of a very irritating and reducing course, when the patient would be safe without any remedies at all, or when at least gentle and unirritating ones would answer as well; as by the use of bleeding and blisters for a pain which might be subdued by a pill of opium, or a warm fomentation; of vomiting, purging, and antimonials, in the catarrh of infants, where some soothing mixture would be all-sufficient. The peculiarity of a patient may be overlooked, which renders him intolerant of a remedy that, in ordinary cases, would be appropriate. Hence perseverance in the use of opium in those whose stomach, nerves and mind are disturbed by it; of antimonials, where they produce continued nausea, violent retching, and cramps; of cathartics in those who are pained and exhausted by their operation. We are consequently to be careful to distinguish between symptoms proper to the disease, and those which may be the result of remedies; otherwise, we may be led to continue the use of them to remove conditions that they have themselves produced; as calomel has been given to correct a greenness in the discharges of infants, which has, in fact, been occasioned by its preceding administration.

The views with regard to recovery from disease, and the principles upon which we are to treat disease, that I have endeavored to illustrate in the preceding remarks, may be briefly recapitulated in the following statements:

That there is always present in the system, during disease, the effort for its removal; or, when this is not, from its nature or its intensity, possible, for its mitigation or relief. In a large proportion of cases, this is sufficient, and will conduct patients safely to a favorable termination.

That this effort, however, is often defeated, or is rendered imperfect from a variety of causes, some of which are capable of being counteracted, and some not; and that a very important, if not the most important part of the duty of the physician is to determine what these causes are, and to counteract them. Hence a great part of practice consists in removing the obstacles which prevent, and employing those means which will promote, the process of natural recovery.

That there are also certain remedies which have a direct power in the removal of disease, and certain others which have an indirect power, more or less efficient, in the same respect. That these may be often employed in mitigating disease and palliating symptoms, when they cannot control the malady itself; and hence may be used in aid of the sanative effort of nature.

That these two methods of procedure are not incompatible with each other, but may be advantageously used in combination; care being only taken, in order to a rational system of practice, to determine upon what principle remedies are employed, and to what means recovery, when it takes place, is to be attributed.

## A CASE OF CROUP—TRACHEOTOMY—RECOVERY.

[Read before the Boston Society for Medical Improvement, Dec. 31st, 1860, and communicated for the Boston Medical and Surgical Journal.]

BY JAMES AYER, M.D., BOSTON.

AT 1 o'clock, A.M., November 28th, I was called to Emma J. S., aged five and a half years. The patient was previously healthy, but had suffered from a "hoarse cold" for several days. The mother had given an emetic of ipecac, with the syrups of tolu and squills combined, and used other simple remedies. I found her pulse accelerated, skin hot and dry, white coat upon the tongue, both tonsils enlarged and reddened, with a slight patch of lymph on the left only. The respiration was hurried and difficult, with a decided croup whistle. Hydrarg. subsulph. gr. iii., and the dose repeated in fifteen minutes. Free emesis followed, and a copious discharge of tough mucus was thrown off, to the great relief of the patient.

She was seen three times during the day. Syrups of squills and tolu combined was given regularly, and pulv. ipecac and hydr. subsulph., gr. v. of the former to gr. iii. of the latter, was given once or twice. Steam was employed, with powdered cinnamon bark added to the water : Pulv. Doveri, gr. iii. at night, to be repeated if necessary.

November 29th (Thursday).—Patient slept considerably. Skin partially moist ; pulse more moderate ; respiration less rapid ; cough continues, with crowing inspiration ; thirst moderate ; bowels free ; tonsils and throat the same as yesterday. Con. med., and add. potass. chlorat. gr. vi. in solution every four hours.

30th (Friday). Slept with interruptions ; had taken an emetic in the night. Pulse and respiration quickened ; skin a little moist. Three dejections through the day, the last of which was tinged with bile ; general restlessness.

December 1st (Saturday).—Was called at 4 o'clock, A.M., and found all the symptoms aggravated ; pulse rapid, and respiration laborious ; patient tossing about on the bed ; countenance of dusky hue, and expression anxious ; dilatation of alæ nasi. She had passed a sleepless night. An emetic had been given and repeated, without relief, and the Dover's powders had produced no sleep. The countenance gradually assumed a sub-livid hue, with violent heaving of the chest and abdomen, with incessant tossing. Medicine, evidently, had no power to relieve in the case, and I sent for the advice of a surgeon, at 7 o'clock, A.M., and Dr. Cabot arrived soon after. The little sufferer's pulse now beat 140 per minute, and she was rapidly failing ; the extremities becoming cold, with constant tossing, dyspnoea extreme, countenance sub-livid, and dilated nostrils. The danger was imminent, and an immediate operation was decided upon. At 7½ o'clock, the patient was placed upon the table and ætherized, and tracheotomy was performed by



Dr. Cabot. On making the incision through the skin, a large, superficial vein was found crossing the track of the wound; this was carefully turned aside, the tissue dissected with scissors, and the trachea opened by the knife. On dilating the wound, the trachea was lined, as far as the eye could penetrate, with a dense, white membrane. The forceps were applied to it, but particles the width of the blades only could be detached; the membrane appeared to be perfectly adherent. The child soon passed from the effects of the æther, and not the slightest accident attended the operation. The lividity of the face soon disappeared. The pulse improved, 130 per minute. Respiration easy, and less rapid. The double canula was introduced, with directions to remove the inner tube every hour for cleansing, and to drop in a few drops of water every half hour. A piece of moistened lace was placed over the orifice. Continue the steam at as high a temperature as possible; also the chlor. potass.; diet, gruel or rice-water. Dover's powder, gr. iii., if necessary, at night. Dr. Storer, Dean of the Medical Faculty, kindly furnished me with the names of students of the medical class who were willing, in turn, to take charge of the patient for several successive nights. By this arrangement, we felt better protected from any accident of floating membrane obstructing the tube.

December 2d (Sunday).—Reported a comfortable night; no Dover's powder required; slept quietly; respiration easy; one dejection; pulse 130. A free discharge of mucus, with bits of membrane from the tube. An injection of gtt. xv. nitrat. argenti, in solution of  $\text{Si}$  to aqua f.  $\frac{3}{4}$  i., was thrown into the tube. This was followed by the discharge of fragments of membrane. The patient's skin was moist, and she continued comfortable through the day. Milk punch (with brandy), and beef-tea, are taken freely.

December 3d (Monday).—The attendant reports a comfortable night, and good sleep. One dejection; no Dover's powder required. Injection of gtt. xv. sol. nitrat. arg. The pulse, in the morning, was 120; at noon, 116; and at  $9\frac{1}{2}$  o'clock, P.M., 140. Respiration, morning and noon, 32; at night, 40; skin drier; punch to be continued; add milk to the beef-tea, when scalding hot. There is a free discharge of mucus through the tube, and shreds of membrane.

December 4th (Tuesday).—At 8.30, A.M., pulse 128; respiration 32; slept well; free discharge from the tube, with bits of membrane; one dejection. Nourishment is taken freely. Pulse in the night reported as low as 100. In the P.M., an injection of nitr. argent. was given.

December 5th (Wednesday).—The student reports the patient to have passed a comfortable night; at 12.40, A.M., she threw off a piece of membrane, two inches in length, and half an inch broad. At 3.15, had a dejection; pulse 128; respiration 30. At 8.30,

A.M., at the morning visit, pulse 124; respiration 36. Flapping sound noticed low down; sonorous râles over both chests. She passed a comfortable day. In the afternoon, one dejection, and small bits of membrane were thrown off during the day. At 9.30, P.M., pulse 117; respiration 29; no râles.

December 6th (Thursday).—Night passed comfortably; one fæcal discharge; bloody mucus thrown off freely through the tube. The inner tube was removed every hour, and cleaned. At 12.10, A.M., pulse 116; resp. 28; patient quiet and easy; brandy punch taken freely. At 8.30, morning visit, pulse 114; respiration 32; sonorous râles over left chest; no voice on closing the tube; expresses her wants by signs. 11 o'clock, P.M., pulse 112; respiration 30; no râles; tongue clean at the tip. 6, P.M., slight, sonorous râles over right chest; comfortable. 9.30, P.M., pulse 114; respiration 30; one dejection, liquid and dark; seven pieces of membrane collected since last visit.

December 7th (Friday).—Passed a comfortable night; at 12 o'clock, coughed up three pieces of bloody membrane through the outer tube, the largest of which was one inch long, and one fourth of an inch broad; pulse 102; resp. 30; slight mucous râles over the chest. Chlorat. pot., gr. iii. in solution every 4 hours; sleeps quietly; iced milk-punch taken at intervals. 9, A.M., morning visit, pulse 118; resp. 28; sonorous râles over right chest; patient had been crying, and was excited; no cough; breathing free. At 1 o'clock, P.M., pulse 112; resp. 24; mucus bloody. The cork applied to the tube produced cough; no râles. At 9.40, P.M., pulse 108; resp. 24; râles absent; sleeps well; urine free; discharge of bloody mucus mixed with pus from the tube, and bits of membrane.

December 8th (Saturday).—Student reports, at 1.45, a loose dejection, and a copious discharge of bloody mucus from the tube. Morning visit omitted, from other engagements. At 12.12, P.M., pulse 112; resp. 32; slight mucous râles over left chest; free discharge of bloody mucus. She desires food. At 9.20, P.M., pulse 116; resp. 32; no râles; free discharge of mucus, and small bits of membrane; appetite improving; two slight dejections. The cork was applied to outer tube for two minutes, producing cough; voice feeble, and heard for the first time since the operation.

December 9th (Sunday).—Student reports a quiet night, and good sleep; at 12.30, A.M., pulse 120; resp. 28; discharge of bloody mucus, and bits of membrane. At 9.30, A.M., pulse 112; resp. 32 after crying; very comfortable; countenance more natural; cork applied for four minutes; breathing freely through the larynx; no lividity; a free discharge of mucus followed the removal of the cork. Beef-steak and bakers' bread allowed for breakfast. At 9, P.M., pulse 108; resp. 29. The steak gave no trouble; two slight dejections. No membrane was discharged through the day, the first exception since the operation; bread and milk taken for



supper; cork applied for 4½ minutes, without inconvenience. Both tubes were then removed; respiration unchanged.

December 10th.—Patient reported to have slept quietly, discharging occasionally mucus, with small bits of membrane. At 1 o'clock, A.M., pulse 112; resp. 32. At morning visit, breathes easily when the orifice is closed; direct its closure occasionally; lime-water to be given in her food; discontinue chlor. potass.; give beef-steak, bakers' bread, and milk; no membrane through the day; orifice closing.

December 11th.—Pulse 104; resp. 24, after brushing her hair; passed a comfortable night; slight discharge of light-colored mucus from the orifice, but no membrane; articulation feeble when the wound is closed; continued comfortable through the day.

December 12th.—Had a quiet night; pulse 100; resp. 24; one dejection in the night; took medicine twice through the day; slight mucous discharge; coughs when she drinks.

December 13th.—Slept well; took mutton broth for breakfast; orifice nearly closed; air passes through it slightly; pulse 100; resp. 24.

December 14th.—Pulse 100; resp. 26; passed a quiet night; the wound perfectly closed. She has a cough. Chlor. potass., gr. vi. in solution, to be given every four hours, and syrups tolu and squills mixed occasionally. No dejection for three days.

December 15th.—Pulse 100; resp. 26; slept well; very comfortable; no dejection; steam to be omitted by day.

December 19th (Sunday).—Pulse 96; resp. 24; one dejection; slept quietly; wound cicatrized; up and dressed.

All the symptoms continued improving till Saturday, December 22d, when she was dismissed. The voice continued to improve, but, at that time, was not above a loud, hoarse whisper; no soreness about the wound or throat.

Several points in this case deserve attention:

First, the age, 5½ years, the general good health, and remarkable docility of the child were highly favorable to recovery.

The character of the membrane extensively and perfectly adherent, and slowly detached, surely foreboded no good.

The imminent peril of the sufferer before the operation, and the instantaneous relief after. The good effects of the injection of nit. argent., in dislodging the membrane, and allaying inflammatory action. The apparent benefit of the continued use of chlorat. potass., given, with slight interruptions, through the course of treatment. Only one Dover's powder was given after the operation, so uniformly comfortable was the patient. Before the operation, they were given repeatedly to allay irritation, or produce sleep. Steam was kept up constantly till the wound was closed, at a temperature of 70°, and above. Our arrangements to accomplish this were more perfect after the operation than before.

The patient was unwilling to take beef-tea, but milk was added

to it, when scalding hot, according to the practice of the late Dr. Buck. She then became very fond of it, and called it "oysters." This little circumstance is important, when we consider how difficult it is to find a new article of diet for a child.

The small patch of lymph on the left tonsil, observed at the first visit, was the only one noticed throughout the disease. The throat and larynx were remarkably free after the operation—possibly due, in part, to the continued use of chlor. potass.

The successful result of the operation, however, was largely due to the persevering attentions of the family, and especially of the father, and the watchful care of the young medical gentleman who so kindly relieved my anxiety for her by night. Fortunately, no obstruction occurred, requiring the removal of the outer tube, till it was dispensed with.

Dr. Cabot made the morning visit with me, and usually the evening, till the canula was removed. The operation was performed December 1st, and the tubes removed on the 8th, just one week.

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#### SUCCESSFUL CASE OF TRACHEOTOMY IN CROUP.

[Read before the Boston Society for Medical Improvement, Jan. 28th, and communicated for the Boston Medical and Surgical Journal.]

BY SAMUEL CABOT, JR., M.D.

W. F. D., aged two years and seven months, son of healthy American parents, was born with what I presume to have been atelectasis of a portion of one lung; and, for the first twelve months after birth, was rather a feeble child, suffering almost constantly with bronchitis, and finally with diarrhœa also. Medicine seemed to do little or no good; and I put him on the use of scraped raw beef, which he took a great liking for, and under the use of which he rapidly gained health and strength, his diarrhœa leaving him very soon, and, after a summer in the country, he returned in robust health, without cough or other ailment, until about fourteen days before I saw him, when he had a breaking out upon the face, which, from the account given by the parents, I suppose impetiginous. On the evening of January 2d, I was sent for to see him. I found that he had been observed to be somewhat hoarse the day before, but had seemed well in other respects, though still having the remains of the eruption about the nose and mouth. When I saw him, he was breathing rapidly, and with some difficulty, his respiration noisy, and having some hoarse cough; his tongue was coated with a white coat, but no membrane was seen on the tonsils. He had eaten largely of corned beef, cranberry sauce, &c. Attributing his symptoms to spasmodic affection of the larynx consequent upon indigestion, I gave him an emetic, which brought away a considerable quantity of undigested food, with some relief to the symptoms.



January 3d.—Breathing quite hoarsely, with same hoarse cough; no membrane visible in throat; p. 140. Gave another emetic, which brought away only some mucus, and a bit of false membrane about one third of an inch square; put him in a room filled with steam, and gave chlorate of potass.; had his bowels emptied by an injection. He seemed rather better during the day; his pulse fell in frequency, and his breathing was easier.

January 4th.—At morning visit much as yesterday; became worse towards night; p. 150; resp. labored; alæ nasi moving strongly.

January 5th.—Had an early visit from the father, who said that the little fellow had seemed on the verge of suffocation during the night for a considerable time; had then become easier, and remained so until shortly before he came for me, when the same symptoms of suffocation had recurred with increased severity. When I arrived, I found him struggling for breath, with a sub-livid face; pulse 170, and intermittent. Feeling that the only hope was in the performance of tracheotomy, I sent for Dr. Buckingham, who fortunately lived near at hand, to meet me. He concurring in the propriety of tracheotomy, I immediately proceeded to the performance of that operation. We found that false membrane covered the trachea at the point opened, and extended below the part visible. We made some unsuccessful attempts to peel off some of the false membrane; but, on introducing the tube, and finding that air did not pass through it, I withdrew it, and immediately a bit of false membrane was thrown out, which had probably been pushed before the tubes, and plugged them, preventing the passage of the air; on re-introducing the tube, the respiration soon became satisfactorily established, the complexion improved, as also the pulse, which fell to about 130.

I was so fortunate as to secure the attendance of some of the members of the Medical Class, who continued to watch the case with unremitting care, until danger had passed, and to whose intelligent watchfulness and care the successful issue of the case may be largely attributed. Two hours after the operation, the pulse had fallen to 120; res. 56. During the day, a number of pieces of false membrane were thrown off, among which was one about half an inch square. The child took some beef-tea, and argent. nit.  $\mathfrak{z}$ i. to the  $\mathfrak{z}$  of water was injected once or twice in the course of the day; the chlorate of potash was continued, and the steam kept up in the most thorough manner. The child slept a good deal, without opiates. The chlorate of potass. had to be discontinued several times during treatment, on account of diarrhœa. Took milk-punch and beef-tea freely; and, during the nights of January 5th and 6th, some Dover's powder, which was the only time he took it.

January 7th.—Pulse 130, 140; respiration 68, 70; got scraped raw beef; relished it very much; took also beef-tea.

January 8th.—Much as yesterday; little or no membrane; some loose dejections.

January 9th.—Pulse 128, 130; respiration 48, 60; sitting up and amusing himself; eats his beef with a good relish. After removing inner tube, had cork inserted in outer one; could breathe a little through larynx.

January 10th.—Has taken beef and pap with good relish; plays with toys; pulse and respiration much as yesterday; can breathe a little through larynx.

January 11th.—Pulse 136; respiration 40. Can breathe more through larynx.

January 12th.—Pulse 120; respiration 50; both tubes taken out; appetite good; strength improving.

January 17th.—Since last record, pulse has kept along at about 125; respiration 49; appetite has continued good; strength and spirits improving; cough has diminished; orifice has been slowly closing, and to-day no air passes through it. Voice more and more audible every day; can be easily understood across the room to-day; pulse 120; respiration 34.

January 23d.—Up and dressed; playing about the room.

January 25th.—Voice almost natural.

### Bibliographical Notices.

*On Obscure Diseases of the Brain and Disorders of the Mind; their incipient Symptoms, Pathology, Diagnosis, Treatment, and Prophylaxis.* By FORBES WINSLOW, M.D., D.C.L., &c. Philadelphia: Blanchard & Lea. 8vo. 1860.

THIS is an interesting but singular book. It contains an immense amount of facts, pertinently illustrative of every form and phase and shade of mental and moral disease. These are given in an easy, gossiping manner, spiced with emphatic and abundant adjectives, and fascinating the reader like a story book. The work is divided into chapters, and each chapter has its title, which, however, is not always an indication of what you are to find in its perusal. As you go on with the book, you are impressed with the belief that after a number of cases somewhat akin had been observed by the author, they had been grouped, and commented and theorized upon, and "pigeon holed" for future use; and when this process had been repeated a number of times, at odd intervals, and without any definite or connected intention, the materials were some day brought out and linked together, and each package made a chapter of this book. Indeed, the writer avers that his intention, in commencing, was to write a *prefatory* chapter to a work which he has prepared upon "*Organic Diseases of the Brain*," and that its unexpected length had induced him to publish it as an introductory *book* to others which will follow. This prefatory feature runs through the work; subjects are broached and briefly theorized upon, and their further examination deferred until another time. In spite of



all the peculiarities of its arrangement, which we really have not much right to call faults, the book is a valuable collection of facts in the history of insanity, and of short essays upon subjects connected with this disease, of great importance to the community and great interest to the general reader. In several of the first chapters, the incipient symptoms of this disease are given with remarkable truthfulness, and the importance of its *early* recognition and treatment very forcibly stated. They are worth the study of every physician, and if acted upon would prevent a vast amount of incurable cerebral disease. Two chapters are occupied by a detailed account of the state of mind during the continuance of insanity, and while one is emerging from the disease, when delusions are disappearing one by one, and the person is gradually finding out his true position and relations to others. These are derived from observation and from statements made by patients after recovery. Some of these descriptions are extremely graphic and thrilling, and convince one of the *intense* life of the insane. Another chapter, upon "Anomalous and Marked Affections of the Mind," treats of a great variety of mental and emotional disturbances which are not commonly called derangement, and examines the thousand and one freaks and extravagancies of persons who are not called deranged, and clearly exhibits their morbid element; and the much abused but most serious subject of moral insanity is treated briefly, but in a very able and convincing manner. The most interesting, if not the most instructive, portions of the work are those upon the memory and its disorders. These are quite lengthy, occupying nearly a sixth of the volume. They are made up of a rare collection of anecdotes and a detail of cases, given in a pleasant style, and are as entertaining as a romance.

The author, through the whole book, contends that insanity never can exist without physical disorder—that the mind itself is incapable of disease, and only exhibits morbid features, through the disease of its organ, the brain; and that, therefore, this, like other physical diseases, is amenable to medical treatment.

This book is a valuable one for reference—is a sort of encyclopædia of all minor matters connected with insanity, and the forthcoming volumes, which this introduces, will be looked for with interest, and will undoubtedly be written with the same care and in the same style which has marked the author's previous productions. T.

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*Report of Professor Valentine Mott's Surgical Cliniques in the University of New York, Session 1859-60.* By SAMUEL W. FRANCIS, Member of Dr. Mott's Surgical Staff. *Sic est Vita.* New York: S. S. & W. Wood, 389 Broadway. 12mo. Pp. 209. 1860.

This modest little volume contains an account of ninety-one cases treated by Professor Mott, in his surgical cliniques during the winter course of lectures, given at the University Medical College, Fourteenth Street, New York. The cases are very interesting, and many of them highly instructive. The history, treatment, diagnosis and prognosis of each case is clearly stated, and set forth in terse and appropriate language. Written in a pleasant style, the book will be of value to the student and young practitioner, as embodying the results of the experience of one of our most distinguished surgeons. It is well printed and bound, and provided with a table of contents. It

contains a correct portrait of the venerable Dr. Mott, engraved by Mr. W. G. Jackman, one of the most skilful artists of New York. The volume comprises, also, the report of Mr. Francis, for which he received the bronze Mott Medal, an annual prize awarded for the best clinical report. Dr. Samuel Ward Francis is the youngest son of the well-known Dr. John W. Francis, of New York. He is a graduate of Columbia College, of the class of 1857, from which institution he graduated with high honor. On the 7th of March, 1860, he received his diploma, creating him Doctor of Medicine, from the faculty of the University Medical College of New York, and in July of the present year Columbia College conferred on him the degree of A.M. In concluding this brief notice, we can only express the hope that his future may be as bright as his career thus far leads us to predict.

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## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

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BOSTON: THURSDAY, FEBRUARY 7, 1861.

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WITH the present number, commences a new volume of the *JOURNAL*, and it will be noticed that a change has been made in the editorial department. The retirement of Dr. Ellis will be much regretted by our readers, as well as by all with whom he has been officially connected or associated. If, however, we are to lose the benefit of his aid and counsel, he cannot deprive us of the example of diligence and fidelity he has left behind him, and by which we shall not fail to profit. We further console ourselves with the reflection that although his efforts will be hereafter more exclusively confined to other departments of labor, medical science will still reap the fruit of his talents and untiring industry.

It only remains for the present editors to add that it will be their first endeavor to discharge the responsible duties they have assumed faithfully and impartially, and to render the *JOURNAL*, so far as lies in their power, worthy the profession it represents. How far they may succeed in their efforts, will depend in a measure upon the countenance and support of those to whom the *JOURNAL* is already indebted, and with which there can be little room for distrust or doubt.

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**ELECTION OF CITY PHYSICIAN.**—At the meeting of the Common Council, held on Thursday, Dr. J. S. Jones was elected City Physician, in place of Dr. Henry G. Clark, who declined a re-election. The office has been greatly honored by the late incumbent, and his valuable contributions to sanitary science have inspired the respect of the whole profession. We can greet Dr. Jones, on his accession to office, with no better wish than that he may sustain the reputation which his predecessor has given to it. In a future number we propose to notice the volume of medical writings recently presented by the latter to the City Government.

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WE publish the following report of the Special Committee appointed to visit the Medical School of Harvard University. It will be seen



that the facilities for instruction in several of the departments have been materially increased during the past year, and that the institution was never in a more flourishing condition than at the present time:—

*To the President and Overseers of Harvard College:—*

The Committee appointed for that purpose, made the annual visit for the examination of the Medical School, on Wednesday, January 2d, 1861. Present of the Committee, the Chairman, and Drs. J. Mason Warren, Thomas R. Boutelle, Gilman Kimball, Jonas A. Marshall and William J. Dale. Seven of the eight professors were present, and gave personal information to the Committee, and accompanied them to the lecture rooms and different apartments of the building. Each of the professors also gave a written report from his own special department.

In the department of Obstetrics and Medical Jurisprudence, no verbal explanation was made, and the written report, while possessing the merit of brevity and terseness, entirely failed to impart to the Committee the information which the rules of the Overseers make it their duty to obtain.

The Professor of Morbid Anatomy made a detailed report concerning his department; and the Committee were highly gratified by an inspection, under his personal guidance, of the excellent and increasing facilities for instruction afforded by the collection of morbid specimens in the Warren Museum. Within the past year 124 new specimens have been added to this collection, making, at the present time, a total of 2244 specimens.

During the past year, the whole of this valuable collection has been re-arranged and classified under the personal direction of the professor; and their present order, security, neatness, and convenience for study, we are confident will not suffer by comparison with any other collection in the world.

Once a week the students have a demonstrative lecture on the specimens, in addition to the usual systematic course in this department.

The importance of this branch of medical science, and its due prominence in the student's course of study, cannot be too strongly insisted upon. Your Committee bear willing testimony to the inestimable value of the means of illustration in this department, as also to the accuracy, enthusiasm and fidelity of the Professor.

In the departments of Theory and Practice and Clinical Medicine, the Committee find an excellent method of instruction is pursued; science is here literally and thoroughly made practical in the study and treatment of disease. We experienced unmingled satisfaction in hearing their explanations and reading the lucid and detailed reports of the mode of teaching pursued by the learned Professors in these departments.

The Parkman Professor of Anatomy and Physiology furnished a very gratifying account of his department.

The increased facilities for practical anatomy, the use of the microscope, the multiplication of anatomical preparations, the abundance of drawings and other illustrations, are all made more intensely valuable to the student by the genius and eloquence of the Professor, and leave nothing more to be desired in this department of instruction.

The Professor of Materia Medica gives a very gratifying account of the attendance upon his lectures.

Your Committee regret to observe a great deficiency in the Cabinet of *Materia Medica*. We believe that drugs cannot, with best results, be wholly dispensed with in treating disease, and that the present and succeeding generations of physicians will continue, practically, to find a necessity for using opium in terribly painful diseases, cinchona in ague, citric acid in scurvy, and iron in anæmia, besides some other medicines of great practical value, though of less comparative certainty.

While this prosaic necessity for the use of medicines exists, and the good time is delayed, dreamed of by the poet, of mercy to men and cruelty to fishes, when all drugs are cast into the sea, an imperative necessity will also exist that medical students should be thoroughly and practically taught in the natural history, quality and purity of drugs. To obtain this knowledge, specimens must be examined, their natural and therapeutic character studied, and the tests for purity applied. We respectfully call your attention to this subject, suggesting the propriety of adopting some means to remedy this deficiency.

In the department of Surgery, the mode of instruction is highly satisfactory. The means of illustration by diagrams, drawings, plates and models, are well chosen and abundant. In addition to oral teaching, the students have the opportunity of witnessing numerous and often important surgical operations at the Massachusetts General Hospital.

The Professor of Chemistry gave the Committee every facility for inspecting his department, and also furnished a very gratifying report. The system pursued is eminently thorough and practical. The neatness, order and system that prevail in this department are worthy of all praise. None but a true devotee in the science of chemistry can develop and maintain such perfect order in the cabinet and laboratory.

The present winter term of lectures has attracted a larger class of students than has ever before attended in a single session. Over 200 students are now members of the Medical School. This fact, which must be very gratifying to the Professors, we think may safely be accepted as the seal of public approval of their mode and quality of instruction.

In a word, we regard the School as in a healthful and vigorous condition, and most cordially and unanimously commend it to this Honorable Board, and bespeak for it a continuation of the well-earned confidence of the medical profession.

Respectfully submitted, for the Committee,

January 31, 1861.

ALFRED HITCHCOCK, *Chairman*.

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MEETING OF THE SANITARY ASSOCIATION.—A meeting of this Association was holden in the Representatives' Hall, on Thursday evening last. The President, Dr. John Ware, presided. The following abstract of the proceedings is taken from a printed report, corrected and officially endorsed :—

The first paper was read by Dr. Robert Ware. He said that for nearly twelve centuries smallpox has been recognized as one of the most fearful diseases to which the human race is liable. Of its horrors when prevailing as an epidemic, we can at the present day form no conception. In the 18th century it was estimated that seven per cent. of the human race—that is, one out of every fourteen persons



born into the world—died of it. Upwards of 2000 persons died of it every year in London, and nearly 40,000 in the kingdom of Great Britain; while its victims throughout the whole of Europe were estimated at 500,000 annually. Extensive and fatal epidemics were not unfrequent in the early history of Boston. In 1702, 313—about 4.4 per cent., and nearly one twentieth of the population—died of this disease. In 1721 more than one half of the population had it, and 844 died. In 1752 the disease was again epidemical, and very fatal. The town then contained 15,684 inhabitants; of these, 5998 were supposed to have previously had the disease, and were consequently protected; 1843 moved out of town; all the rest, except 174—being 7669 persons, and almost one half the population—had the disease either by inoculation or in the natural way, and the whole mortality was 569. From the fact that 467 of these deaths took place in the two months of May and June, it would appear that almost one half of the population lay prostrate with the disease at once.

Nothing is known with certainty with regard to the origin of the method called inoculation, devised to check the ravages of this frightful disease. It was introduced into Boston in 1721, during a very extensive and fatal epidemic of the smallpox, and was at first very little practised. Even so late as 1752 inoculation was so incompletely practised, that upwards of 5500 persons were capable of taking the smallpox in the natural way. Later in the century the benefits were more fully recognized, and in 1792 of 8346 cases, all but 232 were of the inoculated form, and of these nearly two per cent. died. Inoculation performed among the poor in their own houses, and without any particular precaution; and among the rich, chiefly at special hospitals established in the country, was the only means of providing from the ravages of the disease known up to the beginning of the present century.

There was no epidemic of smallpox in Boston from 1800, the time of the introduction of vaccination, until 1839. In that year 60 deaths, and, in 1840, 115 deaths were caused by it. The city has not been wholly free for the space of a year since that time, except in 1844. In that year there were no deaths. From 1811 to 1839, a period of twenty-eight years, the number of deaths from smallpox was only 52, while in the twenty-two years from 1839 to 1861, 1491 deaths occurred from it. The population during the former period increased from 34,000 to 80,000, and during the latter period from 80,000 to 180,000. The increase of mortality from smallpox is wholly out of proportion, and must be attributed to some other cause. This increase does not appear till 1839; in 1838, the law providing that persons attacked by the disease should be at once removed by the authorities to the hospital at Rainsford Island was repealed, since which time no attempt has been made to protect the community by isolating the infected, so that the increase of mortality becomes coincident, in time, with the removal of the precaution adopted against the spread of the disease.

To recognize the inestimable blessing of vaccination, we have only to consider what would have been the condition of this city during the months of the recent epidemic, had it been unprotected as in 1721, or had a large majority of the population undergone inoculation at once, as was the case in 1792; on the first occasion one half of the population lay sick with the disease at once, and one twenty-seventh part died of it. A similar proportion of cases and deaths would

have now laid ninety thousand persons upon sick beds, and would have caused about seven thousand deaths in a population as large as ours. In 1792, 46 per cent. of the whole population had the disease, mostly in the inoculated form, and 1 per cent. died; a like proportion would give, in our population of 180,000, 82,800 cases of disease, and 1800 deaths. Such an amount of sickness and death would have sensibly affected the business interests of the city; but as it was, the presence of an epidemic was hardly to be recognized, except from the talk which vaccination excited, and many physicians did not see a case of the disease during the entire twenty months of its presence. We have seen that the city was almost entirely free from the smallpox from the beginning of the century till the year 1839. The tables of mortality from 1811 to 1839, a period of twenty-eight years, show that only 52 deaths from this disease occurred. During this period the law requiring the removal and isolation of those infected, was in force. Vaccination was introduced very soon after this law of 1797 went into operation. This immunity, which was due to the combined effect of these two causes, was ascribed to one, and the law was repealed in 1838.

In the next two years 175 persons died of smallpox. The city has been visited epidemically at least four times since, and in the twenty-two years from 1839 to 1861, 1491 deaths have occurred. Probably other causes than the repeal of the law contributed to this result, and the large foreign immigration which took place at this time was not without its influence. The population has largely increased, and especially that class whose houses and habits furnish a prolific bed for the disease. The fact remains that, while this law was in force, smallpox was never epidemic, and death from it was very rare; but that since its repeal the prevalence of the disease and its mortality have largely increased. From an examination, such as has been attempted, of the history of the disease of smallpox in this city, of the legislation in regard to it, and of the recent epidemic, two practical points present themselves for the consideration of the Association:

First—Whether a return, either wholly or in part, to the system of removing those affected with variolous disease, and this includes the so-called variola, to a special hospital, be desirable. The law might be made quite effective, and yet less harsh than if the removal were imperative, by providing that only those cases of the disease occurring in houses occupied by more than one family be of necessity removed, while those occurring in families occupying an entire house might be secluded by the police at the expense of such families.

Second—Whether some more efficient regulations than those existing for the enforcement of vaccination should not be adopted. So far as relates to the fines for non-compliance with the law, they are of no avail whatever; the only practical method by which vaccination is enforced is by the regulation relating to the public schools. This is not sufficient, and does not reach, as the recent evidence shows, two considerable and exposed classes of the community.

Vaccination is performed gratuitously by the City Physician, but we cannot rely upon the willingness of all classes to submit themselves and their children to the operation. If some plan were devised by which the city should be divided into districts, to each of which a competent officer should be appointed, whose duty it should be to see that every individual in his district was properly protected by vacci-



nation and re-vaccination, and to vaccinate him if necessary, there can be no doubt that smallpox would be less prevalent and less fatal.

This plan is open to the objection of compulsion; but, in such cases, society has a right to compel. Any person who is not protected by vaccination, so far as his system is capable of protection, may be regarded as a nuisance, and, as such, should be abated.

Dr. John Homans rose, when the reading of the paper was brought to a close, to express the pleasure he had derived therefrom, and made some remarks on the opinion which has got abroad, that the vaccinating virus is not so effective now as in the earlier days of its discovery. From '97—8, and for eighteen years after, it seemed to retain its strength perfectly; but, after that period, it was thought not to be so reliable in its protective qualities as before.

The President announcing that the contents of the next paper would cover the particular point in question, further discussion was postponed; and Dr. J. C. White read a very able and interesting article on "The Introduction of Vaccination, and its Influence upon the Mortality from Smallpox." The following are the conclusions arrived at as the result of the investigation of the committee which he represents:

First—That the introduction of vaccination acted as an immediate check to the frightful ravages of smallpox in all parts of the world. That it destroyed the susceptibility to the disease in the individual as completely as inoculation, or a previous attack of smallpox, without the danger or inconvenience which accompany the latter. That, through its action, epidemics of smallpox have become far less frequent than formerly, and their mortality has been reduced to a great extent. That its success has been greatest in those countries where its universal employment has been made compulsory.

Second—That the protective power of vaccination is absolutely the same to-day as it was in the time of Jenner.

Third—That the immunity conferred by vaccination is not alike, either in amount or duration, in all persons. That the history of epidemics teaches that smallpox will attack a definite proportion of the vaccinated if exposed to its influence. That post vaccine smallpox is very rare before the tenth year in children, and that it increases in frequency from the age of twelve to that of twenty-five. That, after the age of thirty-five, the inherent predisposition to take smallpox seems to die out to a great extent, both in the protected and unprotected.

Fourth—That we possess, in re-vaccination, our only means of ascertaining the condition of individual security at any time, and of affording it when found wanting. That the large proportion of cases in which re-vaccination is found to be successful, its influence in preventing the rise and spread of epidemic smallpox, the renewed safety it affords persons of all ages, and the unanimity of European governments in making its performance compulsory, so far as possible, are sufficient grounds for any action the Association may deem proper to take to render its employment among us more general.

Fifth—That there is no sufficient evidence to show that the vaccine virus now in use has degenerated in any way since the days of Jenner, or that there is any necessity to resort to the cow for a fresh supply.

Sixth—That the operation of vaccination and re-vaccination is perfectly safe in itself; and that the popular opinion, that diseases may

be introduced into the system by vaccination, is entirely erroneous, and should be eradicated from the public mind.

Seventh—That the recent epidemic conclusively shows, that a great neglect of the proper precautionary and preservative measures prevails in the community, and that some more effective means than those now employed should be adopted to prevent its recurrence in the future.

On motion of Alderman Clapp, the two gentlemen who presented the reports, and the President of the meeting, were appointed a committee to memorialize the Legislature for action in regard to this subject. The President announced that the next meeting would be held two weeks hence, when Dr. Jarvis of Dorchester will speak on "The Interest and Responsibility of the State and General Government in the Health of the people."

Hon. Thomas H. Russell then moved a vote of thanks to Drs. Ware and White for their instructive reports, which was carried unanimously, and the meeting adjourned.

### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, FEBRUARY 2d, 1861.

#### DEATHS.

	Males.	Females	Total.
Deaths during the week, . . . . .	27	39	66
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	38.6	35.0	73.6
Average corrected to increased population, . . . . .	..	..	82.14
Deaths of persons above 90, . . . . .	..	..	..

#### Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
13	1	2	3	0	1	0	1

#### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	29.928	Highest point of Thermometer, . . . . .	35 <sup>a</sup>
Highest point of Barometer, . . . . .	30.238	Lowest point of Thermometer, . . . . .	5 <sup>b</sup>
Lowest point of Barometer, . . . . .	29.600	General direction of Wind, . . . . .	N.W.
Mean Temperature, . . . . .	25 <sup>c</sup> .35	Am't of Rain (in inches) . . . . .	0.323

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 585.

		BAROMETER.					THERMOMETER.			SNOW.	Mean Amount of Cloud. 0 to 10.
		7 A.M.	2 P.M.	9 P.M.	Height.	Lowest Point.	7 AM	2 PM	9 PM		
Monday, Jan. 21,		29.75	29.78	29.83			3	14	5		
Tuesday, " 22,		29.61	29.75	29.65			5	29	21		
Wednesday, " 23,		29.56	29.36	29.32			28	36	34		
Thursday, " 24,		29.30	29.30	29.42			2	7	6		
Friday, " 25,		29.50	29.46	29.48			3	15	12		
Saturday, " 26,		29.40	29.40	29.38			17	30	28		
Sunday, " 27,		29.42	29.49	29.50			2	9	4		
					Mean Height, 29.50	Lowest Point, 29.30.				Mean Height, 14.67	
										Time 0 hours, 00 m.	5.40

MARRIED.—In this city, January 29th, Freeman J. Bumstead, M.D., of New York, to Mary Josephine, daughter of the late Ferdinand E. White, of Boston.

DIED.—At Randolph, Thomas B. Wales, M.D., son of Dr. Ephraim Wales, 38.

DEATHS IN BOSTON for the week ending Saturday noon, February 2d, 66. Males, 27—Females, 39.—Abscess (of the throat), 1—accident, 1—anemia, 1—apoplexy, 1—inflammation of the brain, 1—bronchitis, 3—cancer, 2—cholera infantum, 1—consumption, 13—convulsions, 1—croup, 1—cyanosis, 1—debility, 1—infantile disease, 2—puerperal disease, 1—dropsy, 1—dropsy of the brain, 3—erysipelas, 1—scarlet fever, 2—typhoid fever, 1—disease of the heart, 2—disease of the kidneys, 2—disease of the liver, 2—congestion of the lungs, 1—inflammation of the lungs, 3—marasmus, 2—meningitis, 1—old age, 1—paralysis, 2—premature birth, 2—scirrhus, 1—teething, 2—thrush, 1—tuberculosis, 1—unknown, 5.

Under 5 years of age, 31—between 5 and 20 years, 4—between 20 and 40 years, 17—between 40 and 60 years, 7—above 60 years, 7. Born in the United States, 50—Ireland, 12—other places, 4.



THE  
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No. 2.

OBSERVATIONS UPON A MORBID CONDITION OF THE NECK OF  
THE BLADDER NOT DESCRIBED BY SURGICAL AUTHORITIES.

BY D. D. SLADE, M.D., BOSTON.

[Continued from p. 534, Vol. lxiii.]

*Cases illustrative of Contraction of the Neck of the Bladder.*

CASE I.—J. B., æt. 38, single, mechanic. Has always enjoyed general good health. Fifteen years ago, first contracted gonorrhœa, which lasted nearly two months. Was treated by copaiba and cubebs internally, and by injections of nitrate of silver. About six months ago, contracted another gonorrhœa, the acute stage of which lasted for three weeks. Still sees a drop of the purulent discharge every morning, and occasionally during the day. Never had any difficulty in micturition until quite recently. Is now obliged to pass his urine more frequently than natural, and he finds that he is obliged to strain somewhat at the commencement of micturition. The stream is not so full as normal, neither is it so well thrown out. Very frequently, just at the moment of urinating, patient experiences a sharp lancinating pain, lasting but for a moment, which he refers to the neck of the bladder. Has also more or less pain at this time in the anus. During micturition, there is a slight scalding sensation along the urethra. Is troubled by frequent and fatiguing erections at night. Bowels somewhat constipated.

On examination, find the lips of the urethra somewhat red. Having selected a medium-sized wax bougie, this was passed without any resistance, and without much pain, until it arrived at the membranous portion of the urethra, where it met with an obstacle. This resistance was decided and well marked. After a moment's delay, with a very slight additional force, the obstacle yielded, and the instrument passed on into the bladder. Patient was directed to drink freely of mucilaginous preparations, and to take a warm bath, if any inflammatory action was produced by passage of instrument. Strict attention to diet, recumbent posi-

tion as far as possible, were also enjoined. Two days after, there having been no contra-indications, the bougie was again passed without any marked pain. The resistance was not so great as at the first trial. The treatment went on very satisfactorily, and after a few passages of the bougie, the patient was discharged well. He was advised to have the bougie passed occasionally.

*Remarks.*—In the above case, the contraction was well marked, and was, without the slightest doubt, dependent upon the chronic inflammation, the result of gonorrhœa. The contraction yielded to the surgical treatment, and that, too, very rapidly.

CASE II.—Charles A., æt. 25, single, carpenter, of lymphatic temperament. Reports that he has enjoyed good health, although at times has suffered from dyspeptic symptoms. Never has had rheumatism. Did not wet his bed as a child. Has had several attacks of gonorrhœa—the first at the age of 16 years, which was not very acute, and which yielded to common treatment. Two years after this, he contracted another gonorrhœa, which was attended with much inflammation. This, however, disappeared at the end of about three months. Two years ago, again suffered from gonorrhœal inflammation, which has since continued to manifest itself in the form of an occasional drop of muco-purulent matter. Has lately, for the last six months, experienced some difficulty in starting the flow of urine, when called upon to empty the bladder. Never has had any such difficulty previous to this time. Reports that the act of micturition is attended with some pain, just at the commencement, which the patient refers to the neck of the bladder. No pain over the bladder. Stream of urine has sensibly diminished, and is not thrown out so well as formerly.

On examination, find crusts of a whitish fluid upon the lips of the meatus urinarius, which last adhere slightly together. A medium-sized wax bougie being introduced, was passed down without any difficulty as far as the sinus of the bulb, into which the point of the instrument found its way. Being withdrawn, and the extremity being again curved, and to a greater extent, the bougie was carried on to the membranous portion, where a well-marked resistance was met with. This yielded after a moment's pressure upon it, and the bougie passed on to the urethro-vesical orifice, where there was another obstacle, which, however, also yielded readily. Patient complained of a sharp lancinating pain, as the instrument passed through the contracted portions. Directions given to remain quiet, to avoid stimulants, and to pursue a general antiphlogistic treatment, if necessary.

Patient returned on third day. Has suffered no inconvenience from the introduction of the instrument. Sees no improvement in the size of the stream. Does not pass the urine quite so frequently as before. Other symptoms the same. The same bougie was again introduced, and the contracted portion overcome at the two points before mentioned. The treatment was continued in



this way, without any interruption of consequence, for the space of five weeks. At the end of this period, the largest-sized wax bougie passed with ease, the discharge ceased, and all the previous symptoms disappeared. The stream was of the normal size, and well thrown out.

*Remarks.*—This case was also an example of long-continued irritation, produced by frequent attacks of gonorrhœa, terminating in contraction of the neck of the bladder. The resistance presented to the passage of the instrument was very evident. The symptoms complained of were eminently characteristic of contraction, and of nothing else. Although more rebellious to treatment than the previous case reported, it yielded to surgical measures, without the intervention of drugs. The cure was complete and satisfactory.

CASE III.—E. S., æt. 58, clergyman, married. Inherited a good constitution. Has suffered, however, for the last twenty years, at intervals, from asthma, and occasionally from convulsions, approaching, according to patient's report, the nature of epilepsy. As a child, the patient wet his bed up to the age of 13 years; this habit was arrested by the internal use of cantharides. Never has had any venereal disease. Has suffered at times from attacks of neuralgia and muscular rheumatism, which, of late, have become more frequent and more severe.

About twelve months ago, he first noticed that he was called upon to empty the bladder more frequently than before, that he was obliged to rise at night for the purpose, and that when the desire for micturition came on, he could not resist it for a moment. At the commencement of urinating, he suffered extreme pain, which he referred to the perinæum, and which continued during the act, and for a few moments after it was completed. This pain, of a sharp, lancinating character, was much more severe just before micturition. All these symptoms are still present. More or less pain at times about perinæum, and inside of thighs.

On examination, find the lips of the urethra natural. Urine presents nothing abnormal; sp. gravity, 1019; acid, no deposit on standing. No enlargement of prostate. A small-sized wax bougie was introduced for the length of about three inches, but such was the irritability of the canal that we were obliged to desist. In order to overcome this excessive irritability, we advised the introduction of an instrument every other day, which was accordingly practised. It required several days before the irritability could be overcome sufficiently to carry the instrument down to the neck of the bladder, where we ascertained the presence of contraction to a very great degree. The introduction of the instrument produced violent spasmodic action at first, but its regular introduction at stated times gradually overcame the resistance offered. The administration of the iodide of potassium, in moderate doses, the use of the sulphur bath three times a week, warm

clothing, generous diet, &c., were also advised. The general treatment, with the exception of the sulphur baths, was continued for the space of three months, with decided benefit. A large-sized wax bougie was passed, at an interval of a few days, during this period. All irritability of the bladder and urethra ceased. The rheumatic symptoms greatly improved. An occasional passage of a bougie was advised.

*Remarks.*—In this case, there was a decided contraction of the neck of the bladder, dependent, evidently, upon rheumatism. All the symptoms of contraction were clearly marked. The irritability of the urethra, depending in a great measure upon this condition of the deep portions, was excessive, and was overcome only by patient and well-directed efforts. All symptoms yielded to the local, combined with the general treatment.

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#### DR. WARE'S LECTURES ON GENERAL THERAPEUTICS.

[Communicated for the Boston Medical and Surgical Journal.]

##### LECTURE II.

GENTLEMEN,—Having, in the preceding Lecture, stated the general principles upon which we are to depend in the treatment of disease, we are now to consider more particularly the manner in which we are to apply them; that is, we are to determine, in each individual case, what the circumstances are which are to regulate its treatment. It might, perhaps, be deemed sufficient to say that, if we know what the disease is, we shall know how to treat it. We have but to be satisfied, for example, that the case is one of pneumonia, or typhoid fever, or phthisis, in order to know what remedies should be employed. But it will be found, I think, on due consideration, that this alone is a very imperfect guide.

It has been often laid down, in medical books, that the treatment of a disease is to be founded upon a knowledge of its pathology, and not upon a regard to its symptoms. Now a knowledge of pathology should undoubtedly be the basis of treatment; no man can be so good a practitioner without it, as he may with it. But as a sole guide to practice it proves quite insufficient, and an attention to symptoms will frequently prove a safer one. The symptoms express the manner in which the constitution is affected by the disease—the amount of resistance it is capable of exerting against it—its capacity for endurance—its power of aiding recovery; particulars that can only be partially gathered from a mere pathological investigation. It is true that symptoms are the consequences of the pathological condition, and will therefore vanish if this be subdued. But it unfortunately happens, as will be inferred from what has been already said, that our direct power in this respect is extremely limited, and we are obliged to depend very much upon indirect methods. Now, the selection of these is de-



terminated less by those symptoms which indicate the pathological character of the case, than by those which proceed only indirectly from it.

In an earlier part of this course, I explained to you that symptoms were to be divided into two classes—primary and secondary. The primary proceed directly from that condition in which the disease consists, and indicate what that condition is. The secondary are those which arise from sympathy, or in some other way, in other parts than that in which the disease resides, and in the system at large. It is upon the powers of the system at large that we mainly depend for the removal of the disease; their condition, then, is mainly to be considered in the treatment; and the secondary symptoms are our best guides to a judgment as to this condition. No doubt the state of the local disease may often indicate what this condition is, and should therefore never be neglected; but as a direct guide to treatment it is usually of inferior importance. We are, then, in every case, to make what may be called, by way of distinction, a therapeutical diagnosis—which may be characterized as the determination of those circumstances in the constitution of the patient, both in itself and as influenced by disease, and those circumstances in his history and present condition, which are capable of having an influence on recovery, and which require to be promoted, modified, or counteracted, so far as this is possible.

This, undoubtedly, is a confession of the imperfection of our art. It admits that we are obliged to do that indirectly, which it would be much better could we do directly. But if the imperfection exists, it is certainly better to be aware of it, and govern ourselves by the principle which it indicates, than to work vaguely in the dark, and aim at what we have no reason to believe we can accomplish. This is sometimes called treating for symptoms instead of the disease, and is spoken of with almost a sneer, as unscientific and unphilosophical. "Attack the disease," it is said, "and not its effects"; "remove the disease, and the symptoms will take care of themselves." But when we cannot do this, we must do the next best thing. In an attack of intermittent this method will answer; we can cut it short by quinine or bark. In typhoid we have no such resource, and we must do what we can in another way. If our sole principle of procedure were to attempt to remove, directly, the pathological condition in which a case consists, we should be constantly overstepping the limit of our knowledge; we should be constantly striving after the impracticable. Cases may be pathologically alike and therapeutically unlike—or, on the contrary, therapeutically alike and pathologically unlike. Few physicians, I think, can consult the records of their experience without finding ample evidence of the truth of this position. Thus, in common typhoid, two cases whose pathological character is equally well marked, may exhibit such other

differences as to demand modes of management entirely opposite. In one, for example, such may be the aspect of the patient, such his constitution, such the assemblage of symptoms, that a supporting or stimulating treatment may be necessary, even from the very first. In the other, on the contrary, symptoms of a different character may require measures that deplete and reduce—not, indeed, for the direct purpose of reducing, for this, *per se*, is never necessary—but because their favorable effect cannot be ensured without a certain reduction of strength as a consequence.

The importance of looking at a case therapeutically as well as pathologically, and of being governed mainly by our conclusions in this point of view in arranging its treatment, may be most clearly enforced by considering it in relation to some common diseases. For this purpose we may select typhoid fever and pulmonary consumption, as affording the most illustrative examples. While the pathological character of each is, to a certain extent, well understood, and sufficiently uniform, they yet present themselves with a great variety of symptoms, and demand a corresponding variety of treatment. One of them is acute and self-limited, and is generally recovered from; the other is chronic, is not limited, and, although the efforts of the system are constantly to be recognized in the relief of symptoms, in producing periods of marked alleviation—sometimes a prolonged suspension of disease, and occasionally a decided recovery—still, in a vast proportion of cases, it is ultimately fatal. They have both been most minutely studied as to their pathology, their symptoms and course, and probably there are no diseases whose natural history is so thoroughly understood.

As to either of them, we cannot enter into a complete description of all the multifarious differences under which they present themselves in their course. It will answer our present purpose sufficiently if we confine ourselves chiefly to their early stages, especially as it is in this period that the character of each case is probably determined, whether ostensibly or not, and that the general course of treatment is to be determined on.

There are certain cases of typhoid that may be almost said to begin and go through their regular course without any symptoms, certainly without any very marked ones. The patient may have a very slight headache, or simply a dull feeling in the head, a slight chilliness, very little heat, no acceleration of the pulse or alteration of the respiration—a loss, or, more frequently, a mere diminution of the appetite—only a thin, white coat upon the tongue, no thirst, no wakefulness or disturbed sleep. The most distinct symptom, and that of which he complains the most, is a sense of weakness, weariness or exhaustion. This state of things may last through the usual period of the disease, and he may be able, throughout, to rise from bed, dress himself, and move about. Cases of this description are among those vaguely known under the popular name



of slow fever. Now, it is obvious to inquire how we can be sure, with such an absence of characteristic signs, that such cases are typhoid. In several ways. In the first place, they go on and come to a natural termination in health in the same period with well-marked cases of this disease, and no treatment will arrest or shorten them. In the second place, cases beginning and going through the early stages in this way, may become either gradually or suddenly worse, and in the advanced stages assume the distinctive and even more aggravated symptoms. In the third place, in other cases, without any such change, death will rapidly take place from perforation of the intestines or from hæmorrhage, and dissection will reveal the pathological condition of typhoid.

There are cases—the opposite of these—in which characteristic symptoms manifest themselves almost from the first. The access is sudden, and the disease develops itself with rapidity. There is a distinct and severe chill, followed by a smart reaction, with rapid pulse, hot dry skin and thirst, violent headache, and even delirium; a flushed countenance, great restlessness, absence of natural sleep, entire abolition of appetite and digestion. After beginning in this way, and continuing a few days, everything like violence may subside, and the case go on to its termination moderately and safely; but more frequently the character of severity continues through every stage; the danger may be great, and the result fatal.

In other cases we note the early and almost simultaneous appearance of the peculiar symptoms which serve to make a diagnosis—such as chills, febrile action, tinnitus, epistaxis, rapid pulse, coated tongue, loss of appetite, watchfulness and diarrhœa—and this even where the disease is very moderate in severity. In another set, even where the patient is severely attacked, the peculiar symptoms do not manifest themselves at once, but, as it were, drop in very deliberately, one after the other, so that it is not till the disease has made considerable progress that they present themselves in such a combination as to furnish the materials for a perfectly satisfactory diagnosis.

Typhoid sometimes begins like a local disease, affecting some of the more important organs of the great cavities, the brain, the thorax or the abdomen. The most frequent among these cases is an attack resembling cholera morbus, marked by epigastric distress, nausea, vomiting and diarrhœa, with fulness and tenderness of the bowels, these symptoms being, by and by, merged in the true ones of the actual disease. The headache and high active delirium will be sometimes so prominent, that, combined with great congestion of the face and increased throbbing of the arteries, it leads to apprehension of actual cerebral inflammation. Occasionally, the early symptoms are like those of some affection of the lungs, and are not obviously different from those of common catarrh or sim-

## *Lectures on General Therapeutics.*

ple bronchitis. It is only by the progress of these cases that their true character is discovered.

We also find that the condition in which the patient has been before the attack differs very much in different cases. Thus, the line may have been distinctly drawn between actual health and actual disease. The period of the access may be marked to a moment. Up to that moment the individual concerned may have apparently been in his usual health. So decided an onset is, no doubt, rare; but the cases are frequent in which the period of the attack can be determined within a few hours. On the other hand, the patient or his friends may have noticed that his health has been impaired for weeks, or even months. He has had no strongly-marked symptoms. He has continued to engage himself in his ordinary occupations, but it has been by a great effort. There has been a failure of energy, an indisposition for exertion, a loss of strength and flesh, a capricious and unequal appetite, an occasional uncomfortable sensation, or even pain, in the head, perhaps some confusion of ideas, but at any rate a distinct diminution of mental capacity. By and by, very gradually, the actual disease emerges, and manifests itself by the appropriate signs. It may be well to remark here, by the way, as a suggestive illustration of the principle that nature is constantly at work for the removal of disease, that these cases, on recovery, are sometimes followed by a great improvement in the patient's health; and also that some individuals, who have for some time labored under ill health, and who have contracted typhoid fever, will find, on the subsidence of the disease, that their former ailments have either vanished, or at any rate been essentially relieved. Chronic headaches, dyspepsia, skin diseases and catamenial disturbances, furnish the principal examples of this kind.

Now, here are very different modes of commencing the same disease, and we have by no means exhausted their number. A similar variety is to be observed in every stage of it, from first to last. Shall we strike, in all these cases, at what we know—so far as we know at all—to be the essential pathological element? We should strike in the dark. Common sense and common observation forbid us. The most strenuous advocate of an exclusively pathological therapeutics finds himself under the necessity of modifying his treatment according to the character of the symptoms that present themselves. We know that under all these forms lies concealed the same morbid condition, but we have to encounter it under very different circumstances. Why it exhibits itself in such various ways, we can only imperfectly explain by considerations adverted to in the last lecture. Whatever be the explanation, however, we can hardly fail to believe that a regard to the varieties in question must have more or less to do with the treatment we adopt. We know that we have in our hands a disease which must



go through with its natural course, and come to a natural termination. Our business is to watch over this course; to do those things which may promote, and remove those impediments which may prevent, a favorable issue. In order to this, we are to determine how far various symptoms indicate, or how far they constitute in themselves, obstacles to the natural effort, and act accordingly. For the most part our treatment is to be defensive, and not aggressive. We are not to attack, but to protect. I do not mean to imply that in no case, nor at any period of the disease, is actual interference justifiable and useful. Quite the contrary. Conditions present themselves demanding such interference. But the kind and measure of interference must be determined, not by a reference to the pathology of the disease, but by a reference to the state of the system as a whole, or the state of some of its functions, as indicated by the assemblage of symptoms. We are to be always careful to distinguish in our minds the purpose for which we interfere. Thus, we are often able to mitigate or modify symptoms, or modify the performance of a function, although we have no control over the regular current of the disease. In order to this, we may have to employ an emetic, a cathartic, an opiate, or to leech, and even bleed; always, however, bearing in mind that we do so, not with the purpose of directly curing the disease, but of removing some condition which stands in the way of its natural cure.

A similar view of the symptoms with which phthisis manifests itself, will display a corresponding diversity. The pathological character of this disease—a tubercular formation in the lungs—is always essentially the same; yet how differently are different individuals affected by it. We can, it is true, trace some connection between its differences of symptoms and course, and differences in its location, extent, rate of progress and complications, better than we can in typhoid; still, in the study of its history, with a view to its treatment, we are to consider it in very much the same point of view.

In the midst of complete and unsuspected health, a person is seized with copious hæmoptysis, of which there has been no previous indication, and to which no supposed tendency exists. It is immediately succeeded by cough, expectoration and fever. The characteristic symptoms of phthisis speedily follow. The disease runs a rapid course, and in a few months proves fatal. In another case, the mode of seizure and the condition of the patient will be the same, and yet, without any assignable reason, the whole course of things will be different. After a time the hæmorrhage ceases, and the patient apparently recovers completely. By and by, perhaps after months or even years, he has a second attack, and a third, and a fourth. After some one of these, however, his recovery is less complete. He is left with cough, expectoration,

fever, and other symptoms of phthisis. They do not, however, always go on at a steady rate of progress; they partially subside; he has another hæmorrhage, and is perhaps better after it; he may have a marked and long remission. Thus he may go on for some years, the disease gradually advancing, but with still recurring periods of mitigation. Commonly, death at last overtakes his victim, worn out by the protracted malady; but in some rare instances he lives through a long life, and perishes by some other disease.

In another case, the attention is also first attracted by hæmoptysis, but this time it is very slight, hardly noticeable. We find, however, that the subject of it has been indefinitely ailing for a long time. We find him jealous of admitting the existence of any distinct symptom. He has a safe construction to put upon every unfavorable indication. He has had a cough, but it is only "when he has taken cold." He has lost flesh and strength, but this only because he has lost his appetite from being "bilious." He has chills, heats, sweats, pains in the chest, and diarrhœa, for all of which he can find or imagine the sufficient reason. It is hardly necessary to say that such a case goes on, not rapidly, perhaps, but steadily, to a certain termination.

A young woman, in good apparent health, has hæmoptysis, either before, or with, or just after, the appearance of the catamenia; or the catamenia may not come on at their regular period, and a flow of blood from the lungs takes their place. The hæmoptysis may occur repeatedly, at longer or shorter intervals, but always in the same connection, and the health continue tolerably good. By and by, however, the function of the uterus is permanently suspended, and the true nature of her disease is revealed by the development of phthisis.

Or, a patient may have pleurisy, with no extraordinary symptom, and up to a certain point amend from it in the ordinary way. But after a time the progress towards recovery is arrested. New symptoms make their appearance, and at length those that are characteristic of phthisis clearly indicate what has been the real condition of the patient from the beginning.—A simple, hard, dry cough ushers in some cases, the health at first continuing good, without chills or fever, or loss of appetite, strength, or flesh. Others begin like a severe acute catarrh or bronchitis.

Patients, at the commencement of phthisis, often flatter themselves, and the physician himself is often flattered with the hope, that they are merely laboring under some chronic affection of the throat. In fact, all the early phenomena—exclusive of the physical signs—are explicable on this supposition. They are hoarse, speaking is difficult and annoying, there are visible marks of disease on the fauces and epiglottis, they entirely lose the voice and can only speak in a whisper; the cough and expectoration may actually proceed from the throat and larynx. All the while, however, a



deeper malady is fixed, and is slowly but surely pursuing its destructive work in the lungs.

The beginning of phthisis is sometimes masked by the predominance of symptoms of some affection of the abdominal organs—the liver, the stomach, or the bowels—especially dyspepsia and diarrhœa. These, indeed, may so constitute the principal features of the case, as to predominate through the greater part of its course.

These are only some of the various forms under which phthisis presents itself in its earlier stages, and variations not less striking mark its whole progress. To these, as I am not treating of the disease except for the purpose of illustrating the principles on which treatment is to be founded, I shall barely allude. The course of this disease is characterized by innumerable variations in the rate and regularity of its progress, in the degree, intensity and constancy of the hectic fever which accompanies it, in the sweating, diarrhœa and cough, and in the amount and quality of the expectoration; in the state of the appetite, digestion and nutrition, in the rapidity of the emaciation and loss of strength, in the amount of suffering from pain, exhaustion, loss of sleep, in the intercurrent of acute attacks, and in the periods of exacerbation and mitigation of symptoms. The whole is a spectacle of Nature struggling with a disease which she cannot cure, but continuing the contest to the last, and giving evidence to the last that the same principle is at work which, in other diseases and under more favorable circumstances, issues in the restoration of health.

[To be continued.]

### LEUCOCYTHÆMIA.

[Translated for the Boston Medical and Surgical Journal by Dr. HALL CURTIS, from the Gazette Hebdomadaire de Medecine et de Chirurgie.]

*Notes on the peculiar Crystals found in the Blood and in certain Viscera of a leucemic subject; also upon other cadaveric facts observed in the same subject.* By MM. CHARCOT and VULPIAN.

THE study of leucocythæmia has been pursued with ardor since 1845, when the first publications of H. Bennett and of Virchow appeared. Observations upon it multiplied. The knowledge of the symptomatology and anatomical pathology of this disease, one of the most interesting of the nosological table, and one already so ably discussed, has made rapid strides. Whatever may have been the results hitherto obtained, however, it is certain that much remains to be known of a malady so complex; and it is equally certain that by extending the field of observation we shall arrive either at a discovery of new facts, or shall obtain more precise and more complete ideas of facts already acquired. No detail should be omitted. A certain peculiarity which to-day appears of trivial import, may later become valuable, if its existence is constant.

The following case of leucocythæmia which we present, afforded us no previous history; but the autopsy and microscopical examinations presented some interesting facts, among which attention is particularly called to a large quantity of crystals found in the blood, crystals whose chemical characteristics and whose forms we give below.

*Autopsy of leucæmic subject.*—Peculiar crystals in the blood and in certain viscera; considerable numbers of red globules, smaller than in the normal state.

Laure Weiss, aged 58, colorist, was brought on the 20th of September, 1860, to La Pitié, in a very dangerous condition, and died some hours after entrance.

*Autopsy.*—The liver was of immense size (36 centimetres by 40), its tissue friable, of remarkable color, resembling chocolate; spleen likewise very voluminous (longitudinal diameter 28 centimetres, transverse diameter 19), thickness about 10 centimetres, its tissue firm and resistant, color of mahogany. The trunk of the vena portæ, of mesentery and splenic veins, all the vessels, in one word, of the portal system, were enormously distended with half coagulated blood, presenting a remarkably clear chocolate color.

Here and there were found in the splenic veins clots completely white. The kidneys of normal size, not apparently altered. Lymphatic ganglia examined in many places, and especially in the mesentery, had for the most part their normal volume; a few, however, had attained the size of a small nut. Lungs perfectly healthy. Heart voluminous; its muscular walls thickened, are flabby and without color; no alteration in valves; the right and left ventricles are largely distended by a quantity of half coagulated blood, presenting the chocolate color before mentioned.

Two effusions of blood, presenting the same characteristics, existed—one in the thickness of the right mamma, the other under the skin of left shoulder, near the lower insertion of deltoid muscle.

Although the autopsy was commenced more than twenty-four hours after death, yet the body was still warm. The temperature seemed higher, especially at the moment when the hand was introduced into the abdomen in order to remove the viscera.

**MICROSCOPICAL EXAMINATIONS.**—The blood and the viscera were examined the same day as the autopsy, four hours after its commencement. The examination was renewed the following days, and these results obtained:—

*Blood.*—On the very day of the autopsy it contained a few vibrios; since that day it has been preserved in tubes not hermetically sealed, and the number of vibrios has not increased. After the lapse of six weeks, none were found. No trace of serum has exuded from the clots. No liquefaction appeared till fifteen days after the autopsy. No odor of putrefaction was evident till the end of many days. From whatever part it was taken (the blood



of right and left side of heart, also of splenic vein, being examined), it contained a large number of white globules, in a proportion difficult to determine, but by approximation might be considered to equal one half of total amount of red and white globules. This proportion seemed more considerable in the blood of the splenic vein.

In the blood, therefore, were to be considered—1st, the red globules; 2d, the white globules; 3d, the other elements viewed by the microscope.

1. *Red Globules*.—The salient fact regarding these globules is the inequality of their dimensions. A large number (about a third, and this is no exaggeration) have not their normal diameter. Certain globules were found having a diameter of  $\frac{5}{1000}$  of a millimetre; others of 0<sup>mm</sup>.004, 0<sup>mm</sup>.003; and lastly, some whose diameter did not exceed 0<sup>mm</sup>.002. These were not rare, as one or many existed in each field of the microscope with 450 diameters. The smallest of these globules presented a spheroidal form; those intermediate, between the small and the normal, presented at times a disk-like form. All these red globules preserved their characteristics during three or four days.

2. *White Globules* (leucocytes).—These elements are of two kinds—the one offering immediately a nucleus, the others presenting the nucleated form only after the use of reactions, and at times not even so affected by their influence. The first true cellules completely developed are much less numerous than the second.

(a) *White Nucleated Globules*.—These globules have but little variation in their dimensions, and are generally sufficiently large—the most of them having a diameter of 0<sup>mm</sup>.012 to 0<sup>mm</sup>.014; others a diameter somewhat greater. The nucleus, which is unique, has generally a diameter of 0<sup>mm</sup>.006. It is not always round, often slightly eccentric, at times slightly irregular, and may present a kidney-like form. It is studded in the interior with fine granulations, some of them larger than the others, but in general no nucleolus is well marked. The cellule, which is not always of a regular rounded shape, contains also fine and numerous granulations.

Acetic and lactic acids render the cellules paler, by causing their nuclei to be more apparent, and by slightly contracting them. The granulations of the nuclei appear to become more prominent.

(b) *White Globules without the nucleus instantly apparent*.—The nuclei (globulins) are extremely rare. The other globules without nucleus have dimensions quite similar to those of the true cells already described; they also contain numerous granulations. Some of these globules are filled with quite large granulations, very numerous, with refractive edges, which are not dissolved by acetic acid. These are elements in a fatty state, undergoing destruction.

All these globules are not acted upon in the same manner by

acetic acid. (Lactic acid produces the same effect as acetic.) Some of them exhibit one, more frequently two or three small nuclei, generally assembled in groups, and offering all the dispositions mentioned in the white normal globules treated by this reaction. Other globules change, but in this respect; they grow paler, and no nucleus becomes evident. Some globules also are seen, but very rarely, in which quite a large nucleus is shown, though this is almost as much obliterated as the globule itself. The white globules continued visible in the blood that had been preserved a month; a fortnight later, even a certain number were visible.

3. *Other Elements seen in the Blood.*—Besides the globules, both red and white, a very large number of small amorphous granulations were seen, which formed at times by their reunion about the groups of white globules, masses like cinders (*comme cendrés*), and more or less large.

*Crystals.*—At the first examination made on the day of the autopsy, the crystals were not observed, owing perhaps to the fact that they did not exist, or were in a very small number. The next day some were found in each preparation; but their number continued to augment, so that on the 25th at least forty or fifty were found in each preparation, and they became more and more numerous.

These crystals were either without color, or very slightly colored by the reflection of the red globules. They appeared at first sight to be composed of lozenge-shaped tables; but a more attentive examination proved shortly that they were octohedrals quite elongated, of very regular form and quite uniform. (This octohedral form became quite evident when one caused the crystals to turn on their axis, by making a current in the liquid of the preparation.) They were of various sizes. The large crystals were 0<sup>mm</sup>,04 long, and 0<sup>mm</sup>,06 to 0<sup>mm</sup>,08 broad, at their base. Others were 0<sup>mm</sup>,026 long, and 0<sup>mm</sup>,006 in breadth. And others were still smaller. There were also all the intermediate sizes.

The crystals were equally numerous in the various parts which were examined.

Six weeks after the autopsy, the blood became liquid, brownish, and no distinct elements were now recognized except the white globules; a considerable mass of small concretions of a brown or yellowish color, formed, probably, at the expense of the coloring matter of the blood; and, lastly, the crystals. Of the white globules, some remained transparent, without color or but slightly colored; while others, very granular, were more or less colored with a brown yellow hue. The crystals are always very numerous, a hundred at least being present in each preparation, and not at all altered. Besides the octohedral crystals, were others of large and irregular forms, probably constituted by the carbonate of lime.



We give below the view of many of these crystals, taken by the camera lucida (Fig. I. *a*). They are represented magnified about 450 diameters. Their relation in magnitude with the white globules may also be observed.

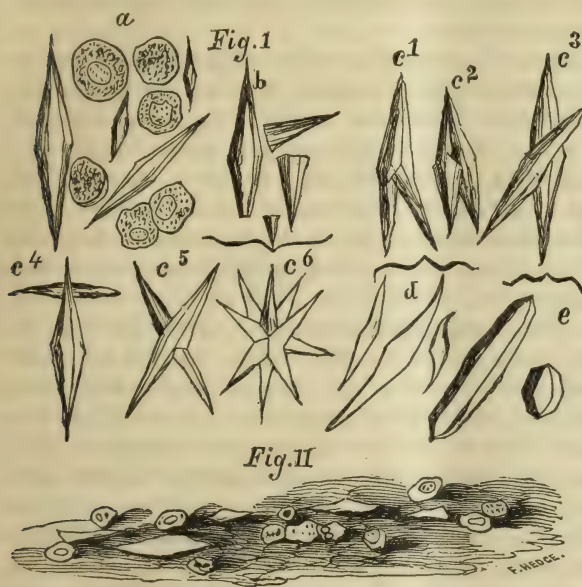


Fig. I. Octohedral crystals found in the blood of a leucæmic patient.

*a*, Crystals and white globules represented by camera lucida, magnified 450 diameters.

*b*, Broken crystals, the usual manner of fracture.

*c1*, *c2*, *c3*, *c4*, *c5*, *c6*, Grouped crystals.

*d*, Crystals modified by the azotic acid.

*e*, Crystals represented at the moment when they commence to dissolve by heat, or when they reform after being dissolved.

Fig. II. Fibrinous concretions expectorated by a patient who was not leucæmic, in which are similar white globules and crystals analogous to the preceding.

These crystals, though quite resistant, seem to have a certain fragility. It sometimes happens that one of the summits or both separate from the rest of the crystal. Others break at their base and form two pyramids (Fig. I., *b*). These fractures also take place, though rarely, with a greater degree of irregularity. The greater number of crystals, in fact nearly all, are intact in each preparation. [See Note, next page.]

The very great majority of crystals are isolated and distinct one from the others.

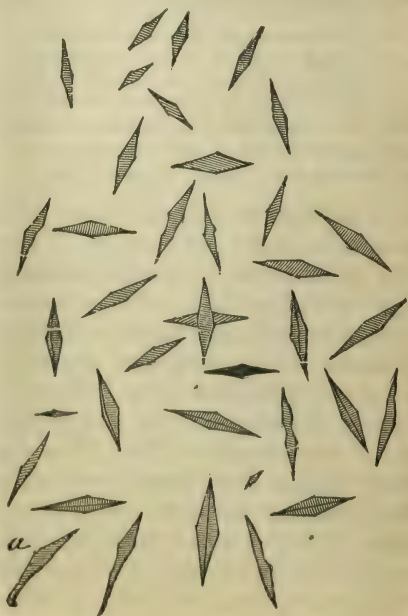
It is quite rare to find them united in groups. When this union does exist, most frequently only two crystals are so associated. The groups that we have generally seen are those represented in Fig. I., *c1*, *c2*, *c3*, *c4*, *c5*. It is only by a great exception that we have found groups of more than two crystals; they then have a tendency to unite about a centre, whence demi-crystals radiate in every direction (*c6*). These crystals are insoluble in cold water; dissolve readily and with rapidity in warm water of 60° to 70° centigrade. They also dissolve in blood at this temperature; and if they have been thus dissolved by a suitable heat in blood placed between two plates of glass for microscopical examinations, they reform more or less completely, after the lapse of many hours, and then present the forms seen in Fig. I., *e*. At a temperature less than 60° centigrade, and equal to that of living

blood, that is to say, at  $38^{\circ}$   $40^{\circ}$  centigrade, they will again dissolve, but slowly.

They are insoluble in alcohol, cold or boiling (they have been found in blood placed in alcohol after 15 days), and are equally insoluble in sulphuric ether, in chloroform, in glycerine, in watery or alcoholic solution of iodine.

They are soluble in acetic, tartaric, lactic, sulphuric, and hydrochloric acids. They then dissolve rapidly and without producing the slightest bubble of gas. They are soluble in potash, soda and ammonia; chromic acid will dissolve them; azotic acid, when concentrated or diluted with water, will not dissolve them. This last fact was noticed by Dr. Vidal, who examined the blood. This resistance to chromic and azotic acid is considerable. Crystals are found in the blood when it has been mingled and left in contact with azotic acid during a fortnight. The crystals are however modified in a certain way by these acids. They become immediately and completely insoluble when thus treated by acetic acid, by soda, potash, or ammonia. (Crystals which have been treated by cold alcohol will yet dissolve in acetic acid and in soda; but remain insoluble when treated by these reagents after they have been placed in boiling alcohol.) These reagents give them a yellowish tinge. Those which have been treated by azotic acid are softened, their edges seem to become "mousses;" they are less straight, and the summits more or less bent, following curved lines, bear witness to the diminution of their consistence (Fig. I., *d*). Boiling azotic acid destroys the blood and the crystals contained in it.

NOTE.—It will be seen, on reference to a similar case published in this Journal on February 9th, 1860, that the crystalline formations resemble each other very closely. The annexed cut, which has already appeared, represents the appearances in the case alluded to.—*Eds. Bos. Med. & Surg. Journal.*





*Liver.*—On the very day of the autopsy, octohedral crystals were found in the liver, and were exhibited the same day to the Society of Biology. The hepatic cellules were softened and easily broken. They contained a greater number of fat globules than was normal. They also contained a considerable quantity of fine granular matter, amorphous, and similar to that already described in the blood. This matter, which existed quite free in the ambient liquid (from the rupture of the cellules, perhaps), gave to the preparations of the liver a certain analogy to those of a cirrlosed liver.

*Spleen.*—A much smaller number of crystals were found in this organ than in the liver. There was a great number of fusiform elements, and the same granular matter that existed in the liver; numerous white grains, seen by the naked eye, and having a certain volume (Malpighian corpuscles?) adhering to the rest of tissue; very numerous microscopical elements, analogous to the white globules of the blood.

*Kidneys.*—Tissue very soft; tubuli well preserved; epithelium not fatty, but slightly transparent, from the granular matter which filled the cellules, and seemed very abundant in the cavity of the tubuli. No crystals were found in the kidneys on the day of the autopsy.

The autopsy, whose results have just been presented, furnishes two considerations of a certain interest—the first with reference to the state of the red globules, the other to the presence in the blood of numerous crystals, formed apparently of a peculiar material not yet determined.

The red globules, as has been seen, had by no means their normal dimensions. A great number of them (a good third) were very small. This circumstance is worthy of attention, although, in a physiological state, frequent varieties of size occur in the globules; still the number of them which have a diameter very much less than the normal, is very small indeed. What consequence could follow from so remarkable a diminution in the size of these globules? It is almost impossible to form a correct idea upon this subject, for the condition of the blood in leucæmia, the abundance of white globules, the reduction of number and of size of the red globules, the chemical alterations that the nutritive fluid must have undergone, cause a complex vitiation, whose effects necessarily also are complex, and in the midst of which it is extremely difficult to settle the rôle that each peculiar alteration must play.

We must content ourselves by remarking, that the reduction of the red globules in number and size, while the white globules have an enlarged area, hardly accords with the hypothesis that the first are formed from the second.

The crystals found in the blood appear formed of an organic substance. The réactions which have been described do not be-

long to those mineral crystallizable substances which are found in blood. We have consulted a large number of plates published by different authors, and relative to blood crystals, and we have not found any forms similar to the crystals which were observed. The crystal alone, in a plate of Funke (*Atlas der Physiolog. Chemie*, t. ix., fig. 5, Leipsic, 1858), presents a certain analogy to ours, and this analogy even very vague. The organic matter which forms these crystals does not as yet appear to have been noticed in the blood, except in the above conditions. This must be mentioned, for we do not hesitate to affirm that this substance is the same, and consequently that the crystals observed in our subject are similar to those observed in another subject who died of the same disease, by one of us and M. Ch. Robin (*Société de Biologie, comptes rendus*, 1853. *Observation de Leucocythæmia*, par MM. Charcot et Robin, p. 45.)

"In the blood of the right ventricle, a great number of lozenge-shaped crystals, very regular, and slightly tinged of a yellow brown, were found mingled with white globules. These crystals were exceedingly abundant in the tissue of the spleen, where they formed masses of considerable size, although only visible by the microscope." (*Loc. cit.*, p. 49.)

There is no doubt that these lozenge-shaped crystals are the same as the octohedral ones we have described. In fact, we supposed the last to be of a lozenge shape, till a more attentive examination convinced us of our error.

Thus these crystals have been found in two cases of leucocythæmia, and this circumstance gives them a greater importance than if one case only had occurred. One can readily suppose they would be found in a larger number of cases, if the microscopical examination of the blood and the viscera had been made some hours after the autopsy. The substance which forms these crystals is dissolved in the blood, and appears to require a certain time to pass to a crystallized state.

It is clear if these crystals are found henceforth in all the cases of leucocythæmia, that they will occupy a place among the first ranks of the characteristic alterations of this disease, for they will form the sure indication hitherto unknown of the chemical alteration of the humors.

In the observation already cited (Charcot et Robin) the crystals were found in great abundance in the spleen. Our own observation proved the greater number to be present in the liver. At present, therefore, neither of these viscera can be indicated as the sole generator of these crystals. However it may be, still the number of crystals in the blood and in the viscera shows that this substance existed in a very remarkable quantity throughout the entire economy of the subjects thus affected.

But must these crystals be considered as occurring exclusively in the blood of leucæmic subjects? One of us, in 1856, observed



crystals, probably similar, in the fibrinous concretions expectorated in a case of dry catarrh with emphysema, in a subject twenty years old. The Fig. II. represents a part of one of these concretions, with the crystals which are imprisoned in it. Their solubility in acetic acid without any escape of gas (other reactions not being tried), and especially their forms, allow us to believe that they were very analogous, if not similar, to those which we have just described.

## Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

JAN. 14th.—*Chronic Pleurisy; Thoracic Tumor; Neuromata.* Dr. CHEEVER exhibited the specimens, which were taken from a subject at the Medical College, and were found in the course of an arterial dissection. The patient died of chronic pleurisy, reported as of six months' duration, and had complained of no other symptoms. He was apparently about 35 years of age.

In dissecting the arteries of the neck, both carotids were found to be given off from the arch of the aorta, and the right subclavian arose from the left side of the arch, and passed obliquely behind the trachea, to resume its usual course. A hard, projecting mass was noticed behind the trachea and œsophagus, pressing those organs forward. It may be supposed to be the left lung, pushed up by the pleuritic effusion. A large quantity of bloody serum and pus was found in the left pleural cavity. The lower part of the pleura was so bridled with adhesions and lymph as to look not unlike the columnæ carneæ of the heart. The left lung was entirely compressed upwards and backwards against the spinal column. On removing it, it was found adherent to a tumor, about as large as an average orange, and which was loosely attached to a membrane upon the sides of the second, third, and fourth dorsal vertebræ. It was impossible to say, from the condensation and morbid adhesions of the tissues, whether the tumor was within or above the pleura itself. The impression was, that it was within the pleura. The tumor was a dense, yellowish mass, not lobulated, firm, and having an appearance between a fatty tumor and fibrin, or lymph. That part which rested against the spinal column was imbedded in a cyst as large as an English walnut, lined with false membrane, and having several bridles of membrane stretching across its cavity. In the upper part of the membrane was a small, rounded aperture, through which denuded bone could be felt. On extending this opening, the head of the first rib was found partially dislocated, and a large surface denuded. The articulation of the second rib was perfect, but the superior edge of the rib was hollowed out, and a more than corresponding convexity and breadth was added on the lower edge, in a thin, flattened, friable deposit of bony substance. The other ribs were natural. The cavity just alluded to was formed by the divergence of the first and second ribs, and by a loss of substance in the body of the corresponding dorsal vertebra. On opening the

spinal canal by a vertical section through the bodies and spinous processes, it was found that this cavity was separated from the spinal cord only by the membranes of the cord, and the false membrane lining the cyst. There was no evidence that the tumor had pressed upon the cord, nor had the patient any paralysis during his illness. It seems probable that the same pressure which wore away the vertebra must eventually have impinged upon the spinal cord, had he lived a little longer.

Two very sharp ridges of bone crossed the cavity, beneath the false membrane. Posteriorly, a membrane, alone, separated the morbid cavity from the muscular fibres of the *multifidus spinæ*. The arterial injection was seen ramifying in the false membrane. The tumor, examined microscopically, was found to be of a fibrinous nature.

It seems probable that the hollowing out of the vertebra, and separation of the ribs, was due to the pressure of the tumor forced up by the lung, and the pleuritic effusion, and subjected to a slight, but constant friction, from the inspiratory movements. It is more difficult to decide whether the tumor was a distinct, morbid growth, outside the pleura, and analogous to those described—or was a huge mass of altered lymph, rendered fibrinous by time, pressure, and partial organization, and belonging within the pleural cavity, as one of the results of the pleurisy.

The intercostal nerves near the seat of the tumor, and on *both sides*, were all, so far as examined, affected with reddish projections, imbedded in their substance, and varying from merely fusiform enlargements, to outgrowths as large as a small pea. These neuromata were also found in the course of other nervous trunks, as the great sciatic, the anterior tibial, and smaller branches. The most perfect and largest one, measuring three eighths of an inch in diameter, was found on the anterior tibial nerve. The plantar nerves were of large size, but uniform. By the microscope, the neuromata were found to be fibrinous only. The brain was removed, and found to be normal. There was no marked disease of any other internal organ. The cutaneous surface, however, offered numerous morbid growths. The skin generally was irregularly spotted over with papular and tubercular excrescences; some pedunculated, and some shaped like the nipple; mostly of a darker tint than the surrounding surface, and varying from a pin's head to a tumor three inches by one and a half; which latter grew upon the nape of the neck. Many were as large as the male nipple, and not unlike it in appearance. They receded singularly under pressure. Microscopically, they were found to have the fibroplastic elements. Their gross appearances resembled a plate in the "Transactions of the Provincial Medical and Surgical Association," Vol. VII. page 364, though it is not intended to classify them with the disease there named as molluscum.

The Warren Museum contains the cast of a piece of skin with like excrescences, from a patient, formerly in the Massachusetts General Hospital, under the care of Dr. H. J. Bigelow. This patient, also, had what "might be called a neuroma," but the excrescences were cancerous in his case, and the two instances are not, therefore, entirely comparable. It is to be regretted that a fuller history of this case could not be had. We can only add, in connection with the neuromata, that the patient did not complain of neuralgic pains in the seat of the nerves affected, nor elsewhere.



## Bibliographical Notices.

*On Diseases peculiar to Women, including Displacements of the Uterus.*  
By HUGH L. HODGE, M.D., Professor of Obstetrics and Diseases of Women and Children in the University of Pennsylvania. "*Nullius in verba magistri.*" With original Illustrations. Philadelphia: Blanchard & Lea. 8vo. Pp. 469.

THIS work is intended by Dr. Hodge to give the results of his own long and varied experience in the diseases of which it treats, without reference to the opinions entertained by others. As he says himself, "I have no desire either to present a summary of the labors of others, or to give a critical review of their opinions and practice. My only object is to record, while incidentally alluding to what others have advanced, my own opinions and practice, the result mainly of clinical observations made during a laborious practice of many years; nearly thirty of which have been spent as a public teacher on obstetrics and diseases of women and children." We like Dr. Hodge's idea, and wish that it were more frequently adopted by those who have grown not only old but wise in our profession. Cellini thought it was a duty incumbent on all men, in whatever state or condition of life, who had performed praiseworthy actions or distinguished themselves, to be their own biographers. Without going to this extent, we yet think that much good might be done, and medical science greatly advanced, had we more of the results of the observations and experience of the bright minds that have grown old in the practice of our profession. Knowledge treasured through a life-time, unfortunately, is not inheritable, but it may be put into forms by which those that follow can readily appropriate it to themselves; and we have something of Cellini's feelings, that it is the duty of the patriarchs of our profession so to embody their experience in words and books that they may not be entirely lost to others.

We like, therefore, very much the intent of Dr. Hodge in putting forth this book, and find much in it that is very valuable; but we regret to say, also, that we find in it several defects, and such as materially impair its usefulness. In the first place, as a general objection under the last head, the book is too bulky—is not concise enough, and yet not perspicuous. We live emphatically in an age of books—we do not object to them. As many have already been written, we think that probably as many more could be written with advantage—provided they are on the right subject, and written in the right way. What we want in all, for we live in a fast age, is terseness, as far as is consistent with a clear and full exposition of the subject, and that all unnecessary, impertinent, irrelevant matter be omitted.

Now our objections, on these grounds, to the book before us begin with the first chapter, and to them we have to add others on the score of carelessness, or at least a want of precision in expression and of critical correctness in the terms used—the latter not a slight fault in any work on science. The first chapter is devoted to "Diseases of Irritation"—a term to which we have no objection. Why is it changed, on the next page, to "irritable diseases"? The diseases surely are not irritable, however much the patient may be. Just after this, too, comes the remark, "Language has proved to be very deficient in expressing the ideas of medical men on the physiological and

pathological states of living tissues." This is very true; and why should it be deficient, except through the carelessness of those who use it? The English language is generally deteriorating, and losing the strength, force and clearness of its expression daily. The newspapers contribute to this through their ignorant editors and hasty scribblers as correspondents, but surely we men of science should not add to the evil. We had better be pedantic than talk slipshod.

Following the paragraph just quoted, the words "*irritation*" and "*irritability*" are defined, and by the latter, according to Dr. H., "is simply meant a capability of receiving impressions from surrounding agents." "Agents which excite or disturb the irritability of the tissues are termed '*irritants*.'" "An irritant acting on the irritability of a part produces an '*irritation*.'" Were this true, the beginning of every phenomenon of life is the effect of an irritant setting up an irritation. Let us convert the above terms. Food acts upon "the capability" of the stomach "to receive impressions from surrounding agents." It is therefore an "irritant," and the phenomenon produced is "irritation." This can hardly be allowed as correct. Why not use the words "excitability," "excitant" and "excitation," as long as the action and reaction are within normal bounds, or rather strictly physiological; and when they pass this and become pathological, use the terms that Dr. Hodge offers, with of course a slight modification as far as degree goes in the definition. It may be objected that the borders between a physiological and pathological condition are not always well defined. It is true. The precise borders are not, and phenomena of the one condition and of the other may overlap, but not to such degree as to cause a well-disciplined mind more than a wholesome exercise of judgment in discriminating where one begins and the other ceases.

In this particular matter, in our objections we go back of all we have said, and take exception to Dr. Hodge's having introduced any such definitions into his book, for they are either too few or too many; too few for an elementary book, too many for a book which in the beginning purports to be a transcript only of the author's results and opinions. In close proximity with what we have just quoted, we find another passage, to which we must strongly object. In speaking of the effects of irritation upon the mind and morale of the female, and the manner in which they are viewed by persons around, he says:—"Let it be remembered that the business of the physician is with the physical being; and although he is often driven to the domains of the mental and moral philosopher to detect the causes and to furnish the remedial agents of nervous diseases, yet he should be slow to admit that his agonized patient suffers from the state of her mind rather than of her body," &c. &c. Now we put in a claim for a much higher office than that of looking only to the physical being. Specialties have, we think (excepting, for obvious reasons, that of the eye and that of the ear), belittled the profession much, and we therefore are disposed strongly to resist the taking away of nearly half the domain of the physician, and limiting his province to the physical being—meaning the purely animal being, the mass of muscles, bones and viscera to which, in the aggregate, we give the generic name man. Even for horses and dogs we doubt whether, in the majority of cases, this would do; but with man, and still more with the female of that animal, we are sure that a treatment not directed by a full appreciation



of the relative bearing of the moral and mental upon the physical, would in many cases be wholly inefficient, if not actually injurious—in fact, our own experience has taught us that a want of this appreciation is the cause of the futility in so many instances of the treatment of so-called uterine diseases.

The remarks on Nervous Irritation and its Consequences extend to the 47th page, and we find many things to object to, but we do not like to quote them, for fear it may be considered that we do not render a fair average of the whole work. We would, however, notice the mixed and confused use of the terms “excitant” and “irritant,” and “excitability” and “irritability,” which seems to increase as the work progresses. We also find the following:—“A man, stimulated by angry passions, has an attack of apoplexy, from which he may completely recover, but sometimes his recovery is tedious and imperfect,” &c. Is it not always tedious, and most always imperfect?

In Chapter II., upon “Irritable Uterus,” that is, of the uterus affected with nervous irritability, the author says:—“It is a state not of organic irritation, but of nervous irritation.” We certainly cannot see the necessity of bringing the idea of simple and uncomplicated nervous erethism into companionship with organic alteration of the organ from congestion or what not. The two are entirely distinct, but may be accidentally found in the same organ, as we suppose the author means when he says, a few lines further on, “there is necessarily no turgescence of the organ,” meaning “there is not necessarily any turgescence of the organ.”

The first part of the work, occupying some two hundred and thirty pages, divided into twelve chapters, and devoted to diseases of irritability affecting the uterus and its appendages, contains a great deal of very valuable suggestion, and the result of much and careful observation, marred, however, by the faults at which we have just taken exception, and the general one pervading the whole book—prolixity. The cases are well selected, most of them directly to the point, and giving effective illustration of the subject in hand. In the treatment of irritable uterus, we find most judicious directions given, especially under the head of Hygienic Measures, but we do not think that the efficacy of packing in the wet sheet is sufficiently appreciated. This is a remedy which in our hands has proved successful when everything else seemed to fail—in one case where the system, already medicated to the last degree, tolerated nothing else.

The next division of the work is devoted to Displacements of the Uterus. In this there is much which we should like to quote, did space permit. Dr. Hodges, in estimating the importance of these affections, takes what we believe to be the true middle path; not on the one hand considering them, as so many do, of paramount importance—the be all and end all of woman’s woes; nor, on the other, slighting them, as some of late have affected to do—estimating them as of but trifling and incidental weight in the catalogue of her sufferings. With regard to the author’s opinion of the value of pessaries, we might object somewhat to it as being too high, more particularly when he calls the use of them a “*sine quâ non*.” We would rather have them thought a very valuable adjuvant in the treatment of some cases—but that it should be our object to do without them if possible, and dispense with them, when used, as soon as can be done without renewing the sufferings of the patient. In discriminating as to the kind

of instrument to use, Dr. Hodge's objection to the stem pessary we do not think borne out by experience. We look upon the stem as a substitute for making the pessary so large as to be held in place by its pressure against the walls of the vagina. The pessary supported on the stem may be of any shape desired, and our experience—large enough to authorize us to an opinion—has taught us that the stem itself need cause no discomfort when properly fitted. The remarks in strong objection to Dr. Simpson's "intra-uterine" pessary, we heartily agree to. We have realized in our practice many of the difficulties mentioned by Dr. H.

The next chapter gives a full exposition of Dr. Hodge's own device, the lever pessary. This is a very valuable contribution. The instrument itself is the least objectionable of all such. By which we mean that we object to any pessary if it can be done without; but so far as shape goes, the lever pessary is best calculated for keeping itself in position, as the first desideratum, and for supporting the uterus in its particular and proper position—a necessity greatly overlooked in many instruments which seem merely intended for shoving the uterus up a certain distance within the vagina, and letting it look after itself when thus forced into retracy.

The third and last division of the book is headed "Diseases of Sedation." The three chapters under this head are entitled "Sedation and its Consequences;" "Sedation of the Uterus—Amenorrhœa;" and "Diagnosis and Treatment of Sedation of the Uterus." To the whole of this part we have many objections, such as we found with the first division. We cannot agree with the author in his terms and definitions, nor can we feel that the subject is treated with a logical exposition of cause and effect—such as we would like to see.

To sum up our opinion of the whole work, we value highly the direct results of the author's long experience, and the truly profound judgment that is evinced in the direct practical deductions drawn; but we object to the course by which he has arrived at them, and to his embodying the various steps of that course in the book, except where the subject is either a new one, or treated from some entirely original point of view. In brief, we think that were the work curtailed by leaving out that which is already well known, and all that is too problematical to assist us in further advances in any particular direction, the value of the book would be doubled; for what is truly valuable in it—and there is a great deal—would be more accessible, and more readily appreciated and applied when found.

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*On Diphtheria.* By EDWARD HEADLAM GREENHOW, M.D., Fellow of the Royal College of Physicians, &c. Pp. 160. New York: Baillière Brothers. 1861.

THIS brief but comprehensive treatise on a disease which has recently attracted unusual attention, from its re-appearance, is founded partly upon the study of this disease in public and private practice, and partly upon information obtained in the course of an inquiry into its causes, symptoms and treatment, made for the Privy Council in 1859. The author is of the opinion, from the facts which he has collected, that the recent epidemic of diphtheria has been occasioned by some wide-spreading influence, deriving intensity of action from local causes. This valuable little monograph comprises some account of



the history of the disease in previous centuries; its occasional sporadic and endemic character; its non-identity with scarlet fever; its communicability, symptoms, sequelæ and morbid anatomy, and suggestions for treatment.

The chapter on the human and brutal diseases coincident with diphtheria, is one which we must not omit to mention as interesting and suggestive.

The book is published at the low price of \$1.25, and is well worth the money.

## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, FEBRUARY 14, 1861.

MASSACHUSETTS MEDICAL SOCIETY.—A stated meeting of the Councillors of the Massachusetts Medical Society was holden at the Society's Rooms, on Wednesday, 6th inst., at 11 o'clock, A.M. After the transaction of the ordinary business, the following resolution, presented by Dr. Jeffries, was adopted:—

*Resolved*, That the Massachusetts Medical Society petition the Legislature to grant the petition of the Boston Sanitary Association, for the establishment of a State Board of Health for the purpose of looking after the sanitary interests of the people, with a competent Secretary, as the Agricultural Board and the Board of Education look after the interests of Agriculture and Education.

"That the Board of Health have charge of the registration of Births, Marriages and Deaths, and the census of all the other vital statistics of the Commonwealth.

"That the Board have some visitatorial power in connection with the Lunatic Hospitals, and all other State Charitable Institutions where the sick and suffering are kept.

"That a petition be drawn up for this purpose, signed by the President and Secretary, and sent by a committee to the Legislature, which committee be requested to appear before any committee of the Legislature and urge the adoption of this measure."

Two honorary members were also elected at this meeting—Bernhard Roeser, of Athens, and Gaetano Valerj, of Rome.

NEW MEDICAL SOCIETY.—We learn that a new Society, "The Obstetrical Society of Boston," devoted to the cultivation of knowledge in obstetrics and the diseases of women and children, has recently been formed in this city. A number of gentlemen interested in the matter held a preliminary meeting on the 8th of December last, at the medical rooms in Temple place, and after a free interchange of opinions appointed a committee, who finally reported a plan of organization early last month. The officers for the ensuing year are: *President*, Dr. Walter Channing; *Vice Presidents*, Dr. D. Humphreys Storer and Dr. Charles G. Putnam; *Recording Secretary*, Dr. William Read; *Corresponding Secretary*, Dr. Benjamin E. Cotting; *Treasurer*, Dr. Charles D. Homans; *Prudential Committee*, Drs. Charles E. Buckingham, Anson Hooker, John P. Reynolds. The meetings of the Society are to be holden bi-monthly.

**DRUG INSPECTION.**—We have received the following communication with reference to the appointment of a drug inspector, and gladly endorse every word of it. The adulteration of drugs, carried to the extent it has been, and still is, is far too important a matter to pass unnoticed at a time when an opportunity occurs for remedying the evil. The excellent suggestions of our correspondent are well timed, and will meet the views of the profession generally. That the Massachusetts Medical Society, as well as the College of Pharmacy, should be allowed a voice in an appointment so nearly touching their own interests, is a simple act of justice. No person could be named more fitted to fill this office than the person suggested, and next to him we should place our correspondent himself, who certainly possesses all the necessary requisites for the faithful discharge of its responsible duties.

*Messrs. Editors,*—When the fourth of March shall have passed, there will be applications on hand for the spoils of the late election war. There are offices to be given away, and officers to be appointed. Among the important offices, is that of the inspector of drugs. Hitherto, in this port certainly, drug inspection is believed to have been a mere farce. Need it always be so? Is it necessary that the importers of opium, rhubarb, &c., should be the sole judges of what your patients and mine should take? Is it fair to the public, that our profession should continue to prescribe rhubarb which has already given its power to some one in England; or opium, whose morphine has been taken out to be itself adulterated? The public are interested in this matter, although they know nothing of it. The retail druggists are interested in it, that they may not be blamed for selling the best they can get. We are interested in it, even if we are unable to tell the difference between two specimens of a crude or manufactured drug; and for the very reason, that most of us may be totally unacquainted with chemical analysis.

Every new administration means to make great reforms. If reform in the matter of drug inspection, in the large ports of entry, were made, one very great step would have been taken towards improving our professional practice. There is no reform more needed. Why should this office, of inspector, be given for a man's devotion to party rather than to science?

There is good reason to believe, if our profession would point out a man capable and willing to examine drugs, that the College of Pharmacy would add their weight to our request for his appointment. It might be difficult to select the man, whose knowledge and independence are sufficient to enable him to say—"That case of opium cannot pass, because it has been sophisticated;"—a man who could neither be bought, nor bullied, although there probably are such men. The present chemical lecturer in the Medical College might be able to fill the office; there may be one or two druggists whose education is sufficient and whose back bones are stiff enough. Neither of the two professions can boast many who are competent.

Would it not pay the Massachusetts Medical Society well for their Council to look into this subject before the 4th of March? Would it not pay the College of Pharmacy to act with them?

I understand that the medical and pharmaceutical societies in New York mean to do something of this kind. Let us in Massachusetts work with them.

C. E. B.



HOFFMAN'S ANODYNE IN DELIRIUM TREMENS.—*Messrs. Editors*,—I was at Deer Island Hospital for a few months after my graduation, and while there treated quite a number of cases of delirium tremens, and of intemperance, the latter including those who had irritation of the stomach, and the "shakes," as some term the state, but not amounting to decided delirium. I employed the various means presented by the text books, and watched the success of students in the same Institution, with variable success; and at one time, thinking that Hoffman's anodyne might answer the indications, I tried it in 17 cases of delirium tremens and 14 cases of intemperance, in doses of  $\frac{3}{4}$ ss. every hour, and of the 31 cases I did not lose one. Perhaps this will not in the least interest you, but as I see the journals filled with new treatments for this disease, and being a subscriber to the JOURNAL, I thought it possible it might deserve a space in its pages. Yours, &c.,

Watertown, N. Y., February 6, 1861.

F. B. A. LEWIS.

DEATHS OF DISTINGUISHED PHYSICIANS.—We find noticed in the recent foreign journals the deaths of Dr. Edward Rigby, President of the Obstetrical Society of London, at the age of 56; Sir Henry Marsh, M.D., of Dublin; Dr. Andrews, of Birmingham, Professor of Physiology in Queen's College; and Dr. Francois Broussais, last surviving son of the celebrated Broussais, and himself an author of many valuable articles in the medical journals.

WE regret to record the decease of the distinguished Dr. John W. Francis, of New York, which took place last week. Dr. Francis has been for a long time at the head of the profession in his adopted city, and his death will be widely lamented.

BUTLER HOSPITAL FOR THE INSANE, PROVIDENCE, R. I.—From the Reports of the Trustees and Superintendent of this Institution, recently received, we learn that, on the 31st of December, 1859, there were in the house 135 patients—68 males and 67 females. During the year 1860, there were admitted 58—33 males and 25 females, making the whole number under care, 193. There have been discharged 66—33 males and 33 females, leaving on the 31st of December, 1860, 127—68 males and 59 females. Of those discharged, 22 had recovered; 21 had improved; 8 were unimproved; and 15 died. The deaths include but two cases of recent attack. The rest were of persons who had been insane for a considerable period. Among them were four women, aged, respectively, 71, 77, 78 and 93.

BANQUET TO M. RICORD.—The banquet given to M. Ricord by his *confrères* came off on Thursday evening, Dec. 20th, at the Hotel du Louvre. The great dining-room of this establishment, itself one of the lions of Paris, afforded hospitality to about two hundred members of the medical profession, who assembled for the double purpose of doing homage to the great syphilograph and justice to a very copious and *recherché* dinner. Great Britain, Germany, Sweden, Russia, Greece, Italy, the United States and South American Republics were all duly represented on the occasion.—*London Lancet*.

In the *Nashville Journal of Medicine and Surgery*, Drs. Stewart and Kyle, of Florence, Alabama, report a successful case of Cæsarean operation.—Dr. Edward Peace has resigned the appointment, which he has held for a number of years, as one of the surgeons of the Pennsylvania Hospital.—Professor Torrey has presented to Columbia College his immense herbarium, with his valuable botanical library.—One hundred and eighty names are registered in the printed catalogue, just received, of the students of the Medical College of South Carolina, session of 1860-61.

### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, FEBRUARY 9th, 1861.

#### DEATHS.

	Males.	Females	Total.
Deaths during the week, . . . . .	33	29	62
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	36.4	39.0	75.4
Average corrected to increased population, . . . . .	..	..	84.1
Deaths of persons above 90, . . . . .	..	..	..

#### Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
9	3	4	3	0	1	0	0

#### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	30.105	Highest point of Thermometer, . . . . .	41°
Highest point of Barometer, . . . . .	30.682	Lowest point of Thermometer, . . . . .	-19°
Lowest point of Barometer, . . . . .	29.138	General direction of Wind, . . . . .	W. & SW.
Mean Temperature, . . . . .	22° 3	Am't of Rain (in inches) and melted snow, . . . . .	0.114

February 7th, 3.55, P.M., thermometer 40 degrees above 0; 8th, 6, A.M., 19 degrees below 0—a fall of 59 degrees in fourteen hours.

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 585.

		BAROMETER.			THERMOMETER.			SNOW.		Mean Amount of Cloud. 0 to 10.
		7 A.M.	2 P.M.	9 P.M.	7 AM	2 PM	9 PM	Time	Meas-ure.	
Monday, Jan. 28,		29.26	29.21	29.30	22	35	34	Mean	5.00.	4.40
Tuesday, " 29,		29.54	29.46	29.63	19	14	-3	Height,	6 hours,	
Wednesday, " 30,		29.80	29.81	29.77	-12	-1	-7	00 m.		
Thursday, " 31,		29.60	29.46	29.31	-10	13	12			
Friday, Feb. 1,		29.95	29.85	29.03	21	35	24			
Saturday, " 2,		29.33	29.48	29.72	21	23	2			
Sunday, " 3,		29.80	29.73	29.65	-15	6	8			

For the month of January, 1861—Mean height of the barometer, 29.447; highest point on the 21st at 9, P.M., 29.832; lowest point on the 15th at 9, P.M., 23.724, with a snow storm. Thermometer, mean, 17.84°; highest, on the 6th at 9, P.M., 40°; lowest, on the 4th at 7, A.M., -12°. Snow fell on the 3d, 15th, 18th, 21st and 26th. Time, 8 hours, 40 minutes. Depth, 14 inches. Melted to water, 1.12 inches.

NOTICE.—Mr. Benjamin Drew is authorized to act as travelling agent and collector for this JOURNAL in New England. We would respectfully solicit, from those of our subscribers on whom he may have occasion to call from time to time, a favorable attention to the object of his visits.

Readers will notice, that in both the last and the present issue of the JOURNAL, several extra pages are given—the number and length of original communications rendering this temporary enlargement necessary.

The 42d Part of Braithwaite's Retrospect was mailed from this office on February 6th, to all those members of the Massachusetts Medical Society whose names appear on the Treasurer's books as having paid their assessments.

BOOKS RECEIVED.—Theory and Practice of the Movement Cure by the Swedish System of Localized Movements. By Charles Fayette Taylor, M.D. Philadelphia: Lindsay & Blakiston. Price, \$1.00.—Lives of Eminent American Physicians and Surgeons of the Nineteenth Century. Edited by Samuel D. Gross, M.D. Philadelphia: Lindsay & Blakiston. Price, \$3.50.

DEATHS IN BOSTON for the weeking Saturday noon, February 9th, 62. Males, 33—Females, 29—Accident, 1—anemia, 3—bronchitis, 2—congestion of the brain, 1—disease of the brain, 1—cancer, 1—consumption, 9—convulsions, 3—croup, 3—debility, 2—diarrhœa, 1—diphtheria, 2—dropsy of the brain, 7—scarlet fever, 4—hemoptysis, 1—disease of the heart, 1—disease of the hip, 1—intemperance, 2—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 3—paralysis, 2—pleurisy, 1—rheumatism, 1—tuberculosis, 1—smallpox, 1—tabes mesenterica, 1—unknown, 5.

Under 5 years of age, 27—between 5 and 20 years, 10—between 20 and 40 years, 11—between 40 and 60 years, 6—above 60 years, 8. Born in the United States, 45—Ireland, 10—other places, 7.



## THE

# BOSTON MEDICAL AND SURGICAL JOURNAL.

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### BICOLORATA BARK.

By EDWARD E. PHELPS, M.D., LL.D., PROFESSOR OF THEORY AND PRACTICE OF MEDICINE, DARTMOUTH COLLEGE.

[Communicated for the Boston Medical and Surgical Journal.]

THIS bark, which is not officinal in any Pharmacopœia and not much known to the profession at large, is certainly one deserving of attention, and bids fair to equal in value even the cinchona with which it has at times been confounded, and for which it has occasionally been sold in the shops.

*Commercial History.*—From all that can be learned, it seems that only one shipment has ever been made to this country, and that something more than forty years since. It came from one of the northern ports of South America to New Orleans, and samples of it were sent to the northern cities for sale. Some of the parcel sent to Boston was analyzed by the request of one of the prominent druggists of that day, but from the analysis showing that it contained no quinia, it was considered worthless, and its purchase in any quantity declined.

*Natural History.*—The bark is in quills, from one fourth of an inch to one inch in diameter, and from ten to eighteen inches in length. The thickness, varying with the size of the quill, ranges from one thirty-second to one sixteenth of an inch. Externally, the quills present a smooth, yet very finely shrivelled epidermis, varying in color from a light ash to a dark reddish ashen hue. On most of the quills may be noticed light colored oval patches, of a slightly irregular outline, and in size from one fourth of an inch to an inch and more in their longest diameter. Although these spots have the appearance of being superimposed upon the epidermis, and may even be detached, careful examination shows that they are a part of the true epidermis which have undergone some change. Upon the removal of the epidermis at these points, the subjacent parts present no different color from the general surface. The internal surface of the bark is usually quite smooth, and of a color

much darker than the external; the prevailing shade is a very dark chocolate. The freshly-broken bark presents an orange yellow fracture, which is rough and seems to be at points almost resinous. The bark is hard, heavy and brittle. A microscopical examination of thin sections shows a structure entirely different from any cinchona, especially in the existence of some peculiar arrangement of tissues, like the medullary rays in some woods. Transverse to the ordinary spindle-shaped cells of barks, is another series of cells, running from near the epidermis deep into the liber. These cells are an oblong square in form, and seem to contain a semi-transparent yellowish matter, with a resinous appearance.

As to the botanical affinities of the tree from which this bark is obtained, we are yet in the dark. The bark, no doubt, is to be placed amongst the false cinchonas, and most of these, if not all, are derived from plants of the same natural order as the cinchona. Several of them are from species of the genus *Exostemma*, and Guibort supposes a bark which he calls *quinquina bicolor*, and which he says is called by the Italians *china bicolorata*, is derived from an *Exostemma*. Christison describes a bark like this, and which he showed me in the Museum of Materia Medica of the University of Edinburgh, saying that he derived it from Italian commerce. He thinks it to be a bark that Brera and other Italian physicians esteem very highly. By them it was considered as coming from the mountain of Pitaya, in Colombia, and was called, by the Italian pharmacologists, *china bicolorata*; while in commerce it went by the name Tecamer bark, and which yielded, by the analysis of Folchi and Peretti, an alkali termed *Pitayna*.

Wood describes this bark, calling it *cinchona bicolor* (a name first given it, I think, by Parrish), and says it was landed at New Orleans many years since, and afterwards sent to Europe; he also states that it is called *quinquina bicolor* by the French pharmacologists, and *china bicolorata* in Italy. He thinks it has been erroneously confounded with Pitaya bark, which is the hard Carthagen bark from which the alkali Pitayna was obtained. With such want of harmony in opinions upon its botanical origin, we may well consider that its natural history is incomplete, although it seems evident that, under the name *china bicolorata* and Tecamer bark, it has been used by the Italian physicians, and a high therapeutical value attached to it.

*Pharmaceutical History.*—The *bicolorata* bark was analyzed by Dr. A. A. Hayes, some years since, in order to ascertain what amount of quinia it contained, but his investigations show that it contained none. From some remark he made at the time, however, I inferred that he found either cinchonia or some other principle nearly allied to it. In October, 1860, Dr. Hayes made another analysis, with the following result:—

“The active matter of this bark is soluble in water, and in



alcohol and water. Analysis divides the whole soluble matter into resin and brown bitter principle; no trace of an alkaloid could be discovered.

"100 parts of the bark afford, by repeated solutions in water,  
12 parts of red-brown bitter principle.

"100 parts of the bark afford, by digestion in alcohol,  $4\frac{45}{100}$   
parts of red-brown resinous matter.

"100 parts, after repeated digestions in alcohol, in proof spirit  
and in water, afford

Red-brown resin, - - - - - 4.45

Peculiar red-brown bitter principle, 14.42

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Whole soluble matter, - - - - 18.87

"The active principles thus separated from the bark, decomposed as usual for alkaloids, did not show any indications of a basic character. In the extract, a slight indication of a kind of tannic acid was found, and lime water separated a coloring matter which was nearly or quite tasteless. The principles which give their character to the bark are a resinous body and a red-brown bitter principle. In water, the resinous body, repeatedly washed, does not cease to impart bitterness. It dissolves in alkalies, freely in alcohol, and the solution is not wholly decomposed when diluted with water. Dissolved in proof spirit, it has an aromatic and bitter taste not disagreeable.

"Water containing the bitter extract imparts its taste to a large volume of water. This bitter differs from that of quassia, in the impression produced upon the organ of taste being more closely like that of the salts of quinia.

"It is probable that the tonic effects produced by the bark are immediately dependent on the action of this soluble principle, which dissolves in acidulated as well as alkaline water."

I can find no other analysis of this bark, and, from the well-known accuracy of this expert analyst, suppose that its chemical character is fully disclosed.

The preparations of it are a tincture, and an acidulated decoction or infusion.

*Therapeutical History.*—I can learn but little in regard to the use of this bark beyond my own experience. This or a similar bark has been used in Italy as a tonic and in the treatment of intermittents, and, as above mentioned, was highly esteemed by Brera and others. My own observations upon this bark as a medicinal agent commenced at least twenty-five years since, and have continued uninterruptedly to this date. At first it was given only as a tonic in convalescence from fevers and other acute diseases. Gradually it was found to have some properties quite different from cinchona or any other tonic. Extended observation at length convinced me that this peculiarity consisted in its more immediate action upon the smooth instead of the striped muscles; or, in

other words, upon the organic muscular fibres like those in the walls of the stomach, intestines, &c., rather than upon the muscles of voluntary motion. By virtue of this power, this remedy proved of great service in all the atonic conditions, not only of the stomach and intestines, but also of all organs where the organic muscular fibre exists. At a later period of my investigations, I found that the bark had some power of increasing the quantity of blood, acting in this respect something like iron. Where, too, anything like a scorbutic diathesis existed, it seemed to restore the circulating fluids to a normal state and increase the firmness of the soft parts. Having now collected so many observations upon the remedial action of the bicolorata bark, I can speak with a good deal of confidence on the subject, and think that few if any remedies equal it in the following cases:—

1st. Those blood diseases in which there is a dyscratic condition, such as is seen in purpura and scurvy. In complicated anæmic states it is preferable to iron.

2d. In most of those constitutional diseases in which there is marked loss of muscular strength, with but little febrile reaction.

3d. In all atonic states of the digestive organs, especially the stomach.

4th. In debility from acute disease, or in that resulting from fever.

*Hanover, N. H., February, 1861.*

## DR. WARE'S LECTURES ON GENERAL THERAPEUTICS.

[Communicated for the Boston Medical and Surgical Journal.]

### LECTURE II.—(Continued from page 43.)

WHAT I wish particularly to enforce by this illustration is the rule of conduct before laid down, that a pathological diagnosis is alone a very imperfect guide to treatment, and that our therapeutical diagnosis—though always keeping the pathological in view—is to be formed by taking into consideration all those circumstances in the condition and symptoms of the patient, the modification of which will either directly promote the effort of nature for relief, or will remove obstacles to that effort. In phthisis, a knowledge of its pathology is principally of use in placing before us distinctly the object at which we are to aim, and preventing us from the attempt to accomplish that which is essentially impracticable—the direct removal of the disease. It establishes the limits of our art. The whole treatment is to be arranged with a regard to the symptoms which I have called secondary. Before the pathology of phthisis was understood, and it was supposed to be caused by hæmoptysis, to be the consequence of neglected or badly-treated catarrh or



pulmonary inflammation or dyspepsia, patients were subjected to a variety of active and exhausting treatment, in order to prevent the original disease, presumed to be curable, from being converted into a secondary one known to be incurable. Older practitioners can recollect the day when bleeding, leeches, emetics, purging, blisters, setons and issues were constantly used to contend with the phantom inflammation, in order to prevent its passing into the stage of ulceration; and when the sputa were studiously examined to determine—by some long-sought-for method of distinction—whether pus were present in them, this being the sign which decided the important point, and sealed the patient's doom. A better understanding of the condition of the lungs, and better means of determining that condition, have changed entirely our views of the objects of treatment, by demonstrating the limits within which we can work, and the principle upon which alone we are to expect any benefit from our interference. The result is shown in the greater comfort and the longer life of the unfortunate subjects of this disease.

I would here remark—though this has no direct connection with the principle I am endeavoring to illustrate—that it may seem doubtful to you whether it be worth your while to study in such detail the variations of a disease for which we acknowledge so little can be done in the hope of an absolute cure. This is a very natural view, and one which has sometimes no small influence in practice, yet is it by no means a just one. The office of the physician is not merely to promote recovery from recoverable diseases, but to alleviate the symptoms and suspend the progress of the irrecoverable. Now, pulmonary consumption is attended with as much suffering and anxiety both to the patient and his friends, as almost any disease, not only from its direct symptoms, but from its long duration, its alternations of hope and fear, and the emaciation and exhaustion attendant upon it. So, too, there are few in which more relief can be afforded both to body and mind by a management well adapted to the various conditions under which it presents itself. If we are to measure the good we do by the comfort we can give the body and the support we can give the mind, our attendance upon cases of this disease is really of more value than that upon many others far more tractable in their nature.

But to return. I have selected these two diseases as affording the best illustration of the principle I am desirous to enforce as being fundamental in therapeutics; first, because each is connected with a pathological condition for which no competent judge pretends that we have any direct remedy; and secondly, because each presents such an immense diversity of symptoms, in its beginning, its course, and its mode of termination, that they render clear to us the variety of treatment that may be required under the same pathological condition. It is true that there are those, both in the profession and out of it, who claim to be able to cure both ty-

phoid and phthisis by direct treatment. Such persons may be either honest or dishonest. If honest, they must be incompetent observers, and are not informed either as to the natural history of these diseases, or the history of opinion with regard to them. If dishonest, and professing to accomplish that which they know cannot be done, or at least do not know can be done, they simply belong, whether in the profession or out of it, to that great tribe of charlatans with which, in every department, mankind has been always infested.

It is easy to find a few examples which will illustrate more particularly the precise way in which this principle may be applied. In typhoid there are certain conditions in which the prospects of recovery are put in jeopardy by the presence of one or more symptoms, such as diarrhœa, epistaxis, intestinal hæmorrhage, suppression of urine. These we attempt to control by special treatment, not with the expectation at all of producing a direct effect upon the essential disease, but by removing a state of things which interferes with that natural course of processes by which alone the patient can recover. In phthisis, also, there are various irritating and exhausting symptoms interfering essentially with the comfort of the patient and accelerating the progress of the disease, which can be directly diminished, even if they cannot be entirely controlled. Such are cough, diarrhœa, hectic fever and night sweats.

The study of all diseases, except the few that are curable by direct remedies, would afford us additional illustrations of the same great law of treatment, though it cannot be pretended that, with regard to all of them, there is the same uniformity of opinion in respect to the absence of any direct influence of remedies over their pathological condition. Even of diseases that are unquestionably self-limited, it is believed by many that they can be arrested at their beginning, or, at any rate, that their duration can be shortened. Thus many physicians, whose knowledge and powers of observation are of the highest order, continue of the opinion that cases of pneumonia may be quelled at once by copious bleeding, or cured by mercurials or by placing the system under the controlling influence of antimony. We cannot undertake definitely to assert that this may not be so, but the tendency of medical opinion certainly has long been in the opposite direction.

It appears from this statement how it often happens that a very good pathologist may be an indifferent practitioner, and, on the other hand, an indifferent pathologist a good practitioner. One who has devoted himself very much to the study of the morbid conditions of organs, and knows them to lie at the foundation of the patient's danger, is naturally led to the opinion that these conditions should be the principal objects of attention. He is apt, also, to think less of treatment suggested by secondary conditions, and of the reflected influence it may have upon the primary. He



will be likely, also, to overlook the effect which remedies presumed to have a direct influence upon the diseased part, may have in reducing the forces of nature, and interfering with her process of recovery—a process, it may be said, not taking place independently in the organ affected, but depending in great part upon the capacity which the system, considered as a whole, has for carrying it on. On the other hand, one may be somewhat deficient in pathological knowledge, and yet a careful and sagacious observer of symptoms and their indications. He may have a just view of the agencies by which recovery is really brought about, and of the importance of husbanding all those resources which may contribute to it. In this way he enables the law of natural recovery to operate without disturbance and without any interference, except such as will fall in with its actual tendency. The best practitioner is he who combines both these elements.

This consideration enables us also to explain how it is that we can often treat cases very well, or at any rate do all that their nature admits, although we are not able to determine with precision what their real character is. We cannot make a pathological diagnosis, but we can make a therapeutical one. We may not know what organ is diseased, nor exactly how it is diseased, but we know that, however this may be, there is an effort making for its recovery independently of art, and that this effort depends for its success upon the efficiency and sufficiency of the constitutional powers. If, then, we watch their condition and aid them by such means as that condition indicates, we may very probably do all for the safety of the patient that we could were the intimate character of the disease perfectly clear to us. We may, for instance, judge in this way that the state of some organ, or of the system, is such as to require bleeding, though we may not know what organ. We may be quite ignorant of the actual pathological condition of a patient, and yet know that all we can do for him is to support and strengthen him. We may not know why a patient is watchful, or restless, or in pain, but we know very well that giving him quiet, sleep and ease are important requisites to his recovery. Those whose experience has mainly been in public institutions, and who have been familiar chiefly with the more marked and advanced cases seen in them, can hardly be prepared to realize how large a proportion of those constituting the bulk of private practice never exhibit those clear diagnostic marks which enable us to give them a place and a name. This especially happens in those earlier stages in which disease comes under the observation of the private practitioner, as compared with the public. It hence often happens that two practitioners may come to entirely different conclusions as to the seat or even pathological nature of a malady, and yet agree perfectly as to the method of treatment. The primary or pathological symptoms are obscure, confused, contradictory; the secondary, or therapeutical, are clear and obvious.

We may infer, also, from these statements, how much a good knowledge of the laws of prognosis will aid in determining a plan of treatment; or, in other words, in making up a therapeutical diagnosis. By prognosis, however, in this relation we do not mean a mere determination of the ultimate event, in recovery or death, but a prevision of the general course of changes through which the patient is to pass before either of these events takes place. How can we know what to do, unless we first know what will happen if we do not do? It is true that a perfect prognosis in this sense is one of the most difficult acts of judgment in practical medicine, and, indeed, such a judgment can only be approximately formed. So far, however, as we can form it, it must be our principal guide not only in determining what amount and kind of interference is necessary in any case, but also in determining how far this interference has been efficacious in controlling it. We cannot doubt that if we could know at the beginning of a disease what was to be its exact course and duration, what variety and intensity of symptoms were to arise, what events to occur, what causes of impediment or exhaustion to manifest themselves, we should be much better prepared to lay out a definite plan of treatment, to judge how much and how little interference was required, than with our present limited powers of judging. The nearer we can approach to such a knowledge of prognosis, the more competent we shall become to practise medicine upon principle. I venture to say that, so far as my own observation is concerned, it has seemed to be of more importance to treatment to be able to determine what the disease will do, than what the disease is.

The great amount of combined knowledge which is necessary in order to carry out the treatment of disease upon this principle, is to be obtained mainly by a thorough study of its natural history. This study runs parallel with that of the natural history of an animal. This is not completed when you have studied his form, his bones, and his anatomical structure, so as to fix his place in a system of classification. To complete it you must also learn his instincts, his degree of intelligence, his habits and mode of life, the variations he is made to undergo by season, climate and locality, his habitations, his food and his relations with man and his own and other species. A similar exhaustive method is to be applied to the natural history of a disease. Everything, however apparently unimportant, is or may be significant. Who would have supposed that a few drops of blood from the nose, or a trifling eruption of red spots on the abdomen, could ever serve to turn the scale in the diagnosis of so multiform a disease as typhoid fever? Who, that so unobtrusive a sign as a slight crackle below the clavicle would enable us sometimes to read at once the fate of a patient in phthisis? A careful study of therapeutic indications may hereafter lead us to the knowledge of signs not less suggestive as to the treatment of disease, than these are as to its diagnosis.



The importance of a careful study of the natural history of disease is well illustrated by the history of the treatment of that peculiar affection called delirium tremens. It was early observed, that when a case terminates favorably it is by the patient's falling into a profound and long-continued sleep. It was naturally inferred that the accident of sleep was the cause of the recovery, and not merely a sign of it. Consequently, it was further inferred that if sleep could be induced by artificial means, recovery would also take place. It was likewise presumed that, without this artificial sleep, most cases would go on to a fatal termination. With this view, the production of sleep was the only aim of treatment, and various remedies were resorted to with this purpose—as opium, emetics, digitalis, stramonium, alcohol, &c. &c., and when sleep took place it was judged to be produced by the remedy. It was found, however, that, in cases left mainly to themselves, or at least without any remedy administered with this special purpose, sleep and consequent recovery took place spontaneously within a period varying from forty-eight to ninety-six hours from the beginning of the paroxysm. And, further, that none of the remedies upon which reliance was placed ever produced sleep at an earlier period, whence it was to be inferred that the result attributed to remedies was in fact due to a natural solution of the disease.

The illustrations of the principles on which treatment is to be founded, have been chiefly drawn from the consideration of acute diseases. It is in these that we can most satisfactorily watch the processes in which they consist, and the mode in which recovery takes place. Acute diseases are more simple in their character, more definite in their course, and also more definite as to the time and manner of their termination, than chronic. But the principles announced are not the less applicable to chronic and even to irrecoverable diseases. In these the agency of the sanative effort is not less conspicuously present, either in promoting recovery, or at any rate impressing its character upon the processes by which even an unfavorable event takes place. Acute diseases are so short and definite in their course, their changes follow one another so rapidly, they come so soon to their termination, that it is a matter of great difficulty to determine how far treatment modifies their result. The same difficulty of judgment exists with regard to chronic diseases, but to a less degree, and not from exactly the same causes. Their course is not so steadily onward nor so precisely regulated. They may remain stationary for a long time. Their intensity varies, their symptoms are less uniform in their advance. There is more opportunity for protracted and deliberate observation of the effects of remedies, we are less liable to confound them with the progressive changes of the disease, and find it easier to distinguish those changes in the condition of the patient that are spontaneous, from those which are the result of treatment.

You will not understand me, by any of the remarks that have been made, to intend to detract at all from the value of pathological knowledge to the physician. On the contrary, they serve rather to show in what this value consists. The more rational treatment of our own day is in fact very much owing to the great progress made in this direction. It is pathology which has led us to more correct views of the limits of possible recovery, and established the boundaries between the practicable and the impracticable. In typhoid, it has shown that the phenomena of the disease and the course it takes are dependent upon, or associated with, morbid conditions which must necessarily go through certain changes before recovery can take place, and cannot be directly modified by any treatment. In phthisis, it has equally shown us that there is always present a state of structure essentially different from that produced by common inflammation, seldom if ever retrogressive in its character, and equally incapable with that of typhoid of being directly modified by treatment. It is, notwithstanding, true, as I have endeavored to show, that, whilst pathology indicates the principle upon which and the direction in which we are to proceed, in each individual case the plan of treatment is to be determined by other and secondary considerations.

I have entered thus minutely into the considerations connected with the first or natural method of treatment, partly because we are obliged to depend in so large a proportion of diseases upon this as our main reliance, but partly, also, because it is only by a thorough understanding of the laws and means of natural recovery, that we are at all prepared to judge how far we have the power of removing disease by direct remedies, or by the second method. As I have already stated, this is the simple and original idea of treatment among mankind; its reality has been a very general belief among physicians, and it is a belief to which we cling with great tenacity. It is difficult for the most determined advocate of the natural method to resist, at the bedside, the strong—it may be almost called—instinct, which impels him to interfere with a positive remedy for a positive evil. And he often can interfere, and with success. But, as I hope I have been able to make plain to you, this interference is for the most part directed to the secondary and not the primary conditions of disease, and is of efficacy not by directly removing the disease, but by promoting, directly and indirectly, that spontaneous movement of the system which is striving for its removal.

Yet as there are remedies, which, so far as we have the means of judging, have a direct and definite power over disease, it is of the utmost importance to know what they are. The clearest and most universally acknowledged of them have been already enumerated, but the question is constantly arising in actual practice, whether these are all, and upon this point there is



room for a wide difference of opinion. No two physicians would perhaps agree in drawing up a catalogue of those remedies which they believe possessed of this direct power. To a certain extent such a difference of opinion may be wholly theoretical. Thus, when opium is administered in the treatment of pneumonia, of rheumatism, or of peritonitis, one man may suppose that it cures the inflammation by a direct influence, another that it merely alleviates the suffering of the patient, suspends certain activities which tend to reduce the vital forces, and thus prevents the exhaustive effects of the processes of disease and enables those processes to go through in a more favorable manner. Here it is a mere question of theory, for both may administer the drug in the same way and in the same state of things. But this is not always so; the determination often becomes of practical importance, and in the aggregate it can never be a matter of indifference whether we understand the principle upon which remedies are applied, or do not understand it.

This is a subject with regard to which we are called upon to judge every day of our lives. There is no case coming before us concerning which the inquiry does not virtually present itself—is there any remedy capable of directly removing this disease? Habit and experience often enable us, in actual practice, almost instinctively to answer the question at once, but the solution is not always so easy, and we are constantly at a loss to know whether our treatment has had any efficacy at all, or, if it have, of what nature this efficacy has been.

Enough has been said, I trust, to show you with how many difficulties the act of judgment in therapeutics is surrounded. Indeed, I doubt whether there is any subject presented to the human mind relating to matters of fact, where it is so hard to arrive at satisfactory conclusions, and be assured that we have reached the absolute truth. On beginning your studies you can have no just idea of this, for those out of the profession have no conception of the tangled nature of medical evidence, or of the embarrassments which impede the formation of a medical judgment, and you have entertained, probably, the opinions on this subject which are current among mankind. But as nothing so impedes improvement as too exalted an idea of the knowledge already possessed, it is well to begin with adequate conceptions of the uncertainties, the doubts and the difficulties of medical practice.

The first principle to be instilled into the mind of the young practitioner is to study the treatment of disease, and to form and hold opinions concerning it, in a spirit of profound humility—to bear constantly in mind that the convictions of the most learned, the most able, the most experienced, the most wise, can be only an approximation to truth; and that there are few rules, or even principles, which may not require to be reviewed, to be modified, even to be discarded;—to avoid acquiring habits of practice so

fixed as to indispose him to resist the influence of evidence as to their correctness, from whatever source it may come;—to avoid as well that frame of mind which leads to the ready adoption of changes in practice upon insufficient grounds, and which shifts from one kind of treatment to another, or from one favorite remedy to another, as whim or fashion may suggest. Opinions are not to be lightly formed or lightly changed.

For the cultivation of this habit of mind, we find sufficient reason in what we observe of the contradictory opinions on points of practice, held by men equally qualified by knowledge and experience; in the changes which so frequently take place in the practice of the same man—beginning life with bleeding, vomiting and purging—ending it with stimulants, tonics and narcotics; in the pertinacity with which some adhere to the doctrines and methods of their fathers and teachers, admitting no deviations from the time-honored track; in the facility with which others fly from remedy to remedy, from drug to drug, as fashion or the last Journal may impel them; who *cured* every disease last year with prussic acid, who *cures* them this year with creasote, and will *cure* them next year with some new favorite panacea.

A glance at the practice of the past teaches us the same lesson of humility, and should teach us to enter upon our duties in the same spirit of cautious philosophy. We can hardly believe that specific efficacy could have been attributed to the calcined powder of the thigh-bone of a man who had been hanged—to the heart of a mule who had been ripped up alive—to the lungs of a man who had died a violent death—to the hand of a thief who had been gibbeted—to the royal touch—to vipers, toads and spiders—beside many other remedies and modes of treatment equally revolting.

We smile, perhaps with contempt, at what seems to us the absurdity of such remedies, and the credulity of those who put their faith in them. But who were they who thus believed? Men of mark in their day. Some of them eminent as philosophers and physicians. Earnest seekers of knowledge and lovers of truth. We perhaps have made certain advances; but how do we know that a few centuries hence, opinions, now firmly entertained, may not appear to our successors as absurd as these?

“Mutato nomine, de te fabula narratur.”

Such a survey should not prompt us to look back upon our predecessors with contempt, but upon ourselves with distrust. It should teach us to entertain a deep sense of the essential difficulties by which investigation into the treatment of disease is surrounded. It should teach, perhaps, as much as anything, that the progress and termination of diseases are so under the dominion of certain great laws of the living economy, that they are far less influenced by *any* methods of interference than our pride of practice leads us to believe.



## Bibliographical Notices.

*Sanitary and other Papers.* By HENRY G. CLARK, M.D., Boston.

THIS elegant volume, presented to the city of Boston by the late City Physician, has been placed in our hands for examination, and we cannot refrain from saying a word upon its contents.

It consists of the various published reports of Dr. Clark, or those prepared under his superintendence, from the beginning to the end of his term of faithful and valuable public service, and the whole make up a thick volume of sound, scientific, professional research and opinion, which any physician might be proud to transmit to posterity as a memorial of his fidelity.

On first opening it, one is struck with the great variety of subjects, of great practical importance to the whole community, which come under the cognizance of the City Physician, calling for the daily exercise of sound judgment and skill, not merely in professional matters, but in treating of questions more strictly within the domain of what is technically called physical science. We must acknowledge that we did not before realize the great responsibility of the office which Dr. Clark has so worthily held, and we feel that it is no more than justice to him to refer at some length to the book which is the summing up and permanent record of his labors.

The first article in the volume before us is the Report on Ventilation, by the committee of which Dr. Clark was chairman, presented to the School Committee December 30th, 1856. This is an eminently practical paper, on a subject of the very first importance, but one which is very generally disregarded; and the city is to be congratulated that it was taken up by a gentleman who made it something more than a theme for rhetorical common-places on the virtues of abundance of fresh air. The report is a plain, forcible exposition, based on careful experiments and recorded facts, of the exact amount of the vital fluid necessary for the daily health and comfort of man, and of the pernicious influence of a contaminated atmosphere. It speaks of the insufficient means which were of necessity resorted to in the hope of remedying the imperfect ventilation of the school-houses at that time, and the danger to which the scholars were thus exposed of colds and inflammatory complaints, while the evil was only partially remedied. It demonstrates, on sound principles, the errors in the construction of the furnaces then in use, by which an insufficient supply of fresh air was introduced, and that in the worst possible way to secure the object desired. It also explains the construction of a stove which it was proposed to substitute for the close stoves then used to warm primary school-rooms, &c.; and the whole concludes with a series of practical rules, thirteen in number, for the thorough ventilation and warming of the city school-houses. The report is illustrated by very useful and intelligible diagrams.

Following this report is one from a special committee, to whom was referred the application of the methods recommended by Dr. Clark, on its practical working in two of the school-houses, stamping it with the seal of the most complete success. This is followed by a Final Report, dated Dec. 9th, 1857, which is even more explicit in its directions for the proper construction of furnaces, ventilating stoves, ejecting and injecting ventilators, ventiducts, &c., with numerous illustra-

tions explaining their application to the purposes intended. The whole concludes with an Appendix, containing much useful information. The Report, or series of Reports, forms a most valuable contribution to the science of ventilation, and the city has reason to be grateful for the thoroughness and sagacity of Dr. Clark in doing a work, the value of which in its effect on the health of the rising generation cannot be over-estimated.

That Dr. Clark's fitness for regulating such matters was fully recognized, is evident from the fact, that on looking a little farther on, we find his name associated with a series of reports and resolves for the thorough ventilation of the Representatives' Hall in the State House, Dr. C. being at that time a member of the House.

The second document in Dr. Clark's book is a Report of the Joint Standing Committee on Prisons, signed by him for the Committee, from which we infer he is entitled to the credit of the whole work. It treats, in brief, of the construction of prisons, their security, salubrity, the various means of securing the health of the prisoners, with critical remarks on the State Prison and several of the jails in the Commonwealth. The effect of this Report appears at once on turning the leaf, where we find an act in four sections, in relation to the health of prisoners, designed to carry out its suggestions. A subsequent Report goes more fully into detail on the subject of prison discipline and the construction of prisons, concluding with a model plan for a county prison. Still another report contains suggestions for the wise distribution of the State money for the benefit of discharged convicts, followed by an Act adopting the suggestions.

We next come to the valuable City Document, "The Report of the Committee of Internal Health on the Asiatic Cholera, together with a Report of the City Physician on the Cholera Hospital," 1849. This last is one of the most important contributions to the history of this fearful disease. It is most thorough, leaving nothing to be desired in its completeness. Dr. Clark gives due credit to his assistants, Drs. Buckingham, Dalton and Williams, to whom he assigns the chief merit of preparing the materials of which it is made up. Without derogating from the full deserts of these gentlemen, we remember the old proverb, "*qui facit per alium*," &c., and that it is no small merit to choose one's assistants well, and put them in the way of giving the most valuable aid.

The next article is Dr. Clark's able and forcible Address, delivered before the Suffolk District Medical Society in April, 1852, on the superiority of Sanitary Measures over Quarantines; a discourse distinguished for its good sense and practical wisdom. Following this are the Senate documents on Ship Fever, published in 1853, one of which is a dissertation by Dr. Clark, interesting and valuable, as giving the fullest information on a disease at that time but little known in this neighborhood.

Other equally valuable papers are Dr. Clark's report on Yellow Fever, and the supposed danger of its introduction into Boston, in 1853, with useful suggestions growing out of its supposed contagiousness, &c. An extremely interesting report of the *post-mortem* examination of the executed murderer, Magee; containing a complete refutation of the scandalous and unprofessional charges of the London Lancet in relation thereto; demonstrating the complete want of knowledge of the laws of the phenomena on which its groundless aspersions



were based. "A draft of a Sanitary Code for Cities;" of which we can only say that it is a complete system of regulations for the preservation of the public health from those numerous sources of injury which spring up like weeds in every direction in large communities, unless the eye of the law be always open and vigilant. Thus we have the subjects of sewerage, sanitary survey, cleansing, supervision of such buildings as from their tendency to overcrowding, or the nature of the occupations carried on in them, are liable to become dangerous to the health or morals of the citizens—the laying out of our streets, drainage, ventilation, pleasure grounds, epidemic and contagious diseases, vaccination, interment of the dead, &c. &c.; for all these subjects there is a complete set of rules, most carefully drawn up, which must be of great value as a guide to legislation. We are not able to say how much of this code our own government has adopted for its own guidance, but some of its provisions, we believe, have become State Laws.

The last paper in Dr. Clark's volume is "a Plan for a Free City Hospital, with suggestions as to its location, structure, organization and support." A most admirable plan for such an institution, illustrated with excellent designs. When the city shall fairly set about this important work, it will be found that the suggestions of the late City Physician leave little to be added or changed.

Distributed through the volume before us, are several of Dr. Clark's Quarterly Reports, containing matters of interest out of the routine of the usual vaccination report. The very last in the volume, dated October 8th, 1860, contains some very forcible suggestions to the City Government in regard to some of the overcrowded localities of Boston, and points out certain tenements as demanding immediate action to avoid the dangers so inseparable from such outrageous but too often neglected centres of disease, to say nothing of the cruelty to the unfortunate tenants which the avarice of landlords inflicts in this way. And on the last page we find that it is to Dr. Clark we owe the exemption from the sickness which would undoubtedly have been caused by the consumption, as food, of the carcasses of between forty and fifty hogs, which had been fed and fattened on Spectacle Island, in Boston harbor, *on the bodies of the dead horses which were conveyed there from the various stables of the city!* Pork eaters must be indeed grateful for such an escape.

We have thus run through Dr. Clark's memorial volume, conscious that we have done but feeble justice to its sterling merits. Well may the city regret to lose the services of so faithful an officer.

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*Electro-Physiology and Electro-Therapeutics; showing the best Methods for the Medical Uses of Electricity.* By ALFRED C. GARRATT, M.D., Fellow of the Massachusetts Medical Society. "Study and search out the secrets of Nature."—*Harvey*. Second Edition, with additions. Boston: Ticknor & Fields. 1861. Pp. 716, large octavo, with 100 Illustrations.

THIS complete work has already been noticed by us, and the appearance of a second and enlarged edition in such quick succession upon the first, is a most gratifying and satisfactory testimony to its merits and their recognition by the profession. It really seems to be exhaustive of this department of electrical science. The present edi-

tion is not merely a reprint of the first, but contains a number of pages of new matter—as from page 114 to 117, for instance; also from page 475 to 479, a new Appendix, and some new illustrations. These accessions are evidence of the continued activity of the author in his special department of medical science, and are a new guaranty of the thoroughness of his work; they all have particular reference to practical matters, and are a valuable addition to the book. We are glad to learn that it is generally received as the best authority on the subject in any language.

## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, FEBRUARY 21, 1861.

**DRUG INSPECTION.**—We gladly print, to-day, a second communication from our correspondent on this important subject. There should be no delay in taking action upon it. We must confess, that, although we had a general impression that adulteration in drugs is a very common thing, we did not fully appreciate, until we learnt it in conversation with him, the extent to which it is carried in spite of government inspection, and that many of the sophistications practised cannot be detected without a knowledge of chemistry, such as hardly a druggist in this city possesses. We are told, for instance, that there are very few, even of our most experienced dealers, who can positively say whether the morphia has been taken from a given specimen of opium or not. We most sincerely hope that the government may be fully enlightened on this subject before the appointment of inspector is made. We do not doubt that the influence of the medical profession, based upon the genuine fitness of the candidate, would have great weight with the appointing power. We feel that the whole community are deeply interested in this matter, and for ourselves we would express great obligation to our independent and intelligent correspondent for thus bringing it to public notice.

*Messrs. Editors,*—For the good opinion of your correspondent's ability to act as Drug Inspector, in your last number, he would be exceedingly grateful, if he were not perfectly aware that he is not competent to fill the office. There can be no man fit for that place, who is not a practical chemist. Others may be judges of the ordinary physical appearance of drugs, and many of our older wholesale dealers may be able to judge of them so far as appearances are concerned. But what physician, with any amount of medical practice, can keep up with the newly-invented methods of adulteration? There are two kinds of adulteration—that practised before a drug is imported, and that which is the specialty of manufacturers here. The latter can be reached only by municipal or State law. In this connection, I may state, that six months ago, for a special purpose, wishing to make use of muriate of morphia, I could not find any in this city, which was capable of solution. The muriate of morphia was generally manufactured in this country.

The crude drugs of foreign origin are most of them introduced



through the ports of Boston, New York and Philadelphia. A few come by way of Baltimore, and in these cities, of course, it is most necessary that we should have capable inspectors. There are two or three gentlemen who are trying to obtain the appointment for this city. Doubtless they are estimable men, and fulfil their duties as retail druggists to the satisfaction of their customers, who know no more certainly than you or I of their qualifications. They will have the support of political friends, and some of them will have the support also of drug importers; the most dangerous advisers, as they will try to obtain the appointment of a man who will pass their drugs with as little inspection as possible.

The public are interested in this matter as much as we are, and if we can bring the names of our better-known patients to bear upon the government, we may perhaps be enabled to procure the right man for the office. I have had conversations with some of our druggists, who are willing to give their influence to such a man as the two professions may select. He should be one who could bore at random a dozen balls in a case of opium, with an instrument similar to a butter borer, and in a week's time be able to say whether it contains the average amount of morphia or not. A very few rejections of cases of opium would satisfy an exporter abroad that this country is not the place for receiving a sophisticated drug. What the importer would learn by it, is evident enough.

It is proposed that the druggists and physicians shall unite in recommending some suitable man for the office of inspector, and you will undoubtedly give the weight of your JOURNAL in his behalf, if they see fit to take such action.

C. E. B.

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DEATH OF DR. H. W. ADAMS.—We are pained to be obliged to record the death of Dr. Horace Walter Adams, of this city—an event which took place on Sunday last, at his father's residence. As his case will be fully reported to the Boston Society for Medical Improvement on Monday evening next, we will merely state, at the present time, that he died, as reported to the City Registrar, of pseudo-membranous disease of the throat. A cotemporary truly says of him:—

“His good humor, warm heart, and wide information, made him a universal favorite, and he has passed away, leaving a void in his own family which can never be filled, whilst by society, to which he had been an ornament, his death will be received as a peculiar privation. Few persons more enjoyed life or were more capable of enhancing the enjoyment of others, and our own regrets mingle particularly with the mourning of those, who, though bowing to the dispensation cannot cease from lamenting the bereavement.”

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“PATENT MEDICINES.”—*Messrs. Editors*,—No circumstance connected with the wholesale drug trade of this city, is more surprising than the immense demand for “patent” or proprietary remedies, on the part of the retail druggists with whom they do business. During the past five years, the demand has been constantly increasing; and instead of dozens of certain articles being ordered, they are now purchased by the gross. It is certainly safe to say that forty per cent. of the items, which make up the orders sent into the city for drugs, are for articles classed under the name of “patent medicines.” The price currents of dealers in these articles, show, that the number constantly

in demand, is between five and six hundred. They comprise pills, salves, powders, bitters, liniments, &c. &c., many of which have the most fantastic and "taking" names. Formerly, they were commissioned to druggists, now they are regular articles of sale like camphor, opium, or ipecac.

It is not uncommon for those who deal in them largely and exclusively, to make purchases of a single article, at one time, of *ten thousand* dollars in amount. Wholesale druggists are often compelled to buy in lots of *one thousand* dollars.

Notwithstanding these large sums are realized by the proprietors, the *business* of compounding and introducing nostrums is, in general, an extremely hazardous and ruinous one. The cost of winning public attention and creating a demand, is very great, and usually exceeds the profits. Where one like Ayer, Brandreth or Townsend succeeds, hundreds are driven into bankruptcy.

It is remarkable how strong and persistent is public credulity. It overrides all common sense, all experience. What is the cause of this universal and increasing demand for, and confidence in, secret remedies? Why, with the spread of intelligence, the increase of schools and libraries, should there be increased demand for remedies, the nature of which is unknown, and which ought to be regarded with suspicion by every well-informed mind?

It is a significant fact, that while Homœopathy, with its alleged small doses, claims to have a wide-spread and strong hold upon the confidence of the people, the people are pouring down enormous quantities of substances, differing essentially from their sugar pellets and attenuated solutions. The same individuals, who are the most noisy and zealous in advocating this pretentious and absurd system, are constantly dabbling in secret nostrums, and are the main supports of every variety of empiricism. N.

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PERCHLORIDE OF IRON.—This powerful styptic and astringent has been heretofore, we believe, in this country, used mainly as an external application. We have heard in one instance of its successful use internally in a case of obstinate nasal hæmorrhage. We transcribe below two cases, where it proved valuable as an internal remedy, from the *British and Foreign Med.-Chir. Review*:—

Dr. Sassier, of Châlon-sur-Saône, was called to see a man aged 70, who had been seized suddenly with depression, nausea, and shiverings, and three days after these preliminary symptoms there followed epistaxis, hæmatemesis, and hæmaturia; the patient lost blood both by the gums and the rectum. At the same time petechiæ and ecchymoses were developed on the trunk and limbs. Iced drinks were ordered, together with dilute sulphuric acid, and extract of rhatany, but without success, and indeed the symptoms seemed to be increased. The hæmorrhage continued, the tongue became dry and black, and the prostration was extreme. Dr. Sassier then prescribed the perchloride of iron, dissolved in distilled water, and sweetened with syrup, to be taken in spoonfuls every hour. The next day the patient's state was the same, but on the succeeding day there was a sensible diminution of the hæmorrhage, which ceased on the third day, but the perchloride was continued for two days longer. The disease seemed to be cured, but a week afterwards the hæmorrhage reappeared, and the perchloride was again ordered, and after it had been employed two days the bleeding entirely ceased, and was never again renewed. The patient recovered after a prolonged convalescence.

Dr. Bertet relates another very severe case of purpura hæmorrhagica treated



successfully by the perchloride of iron, and in this case the remedy was employed to the exclusion of all other medicinal agents. Dr. Bertet considers that at present the perchloride of iron is the best remedy for purpura hæmorrhagica, and that in some cases it is almost infallible.

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DIPHTHERIA.—Dr. Asa Horr, of Dubuque, Iowa, writes as follows to the Editor of the *New York Medical Times*:—

Diphtheria has been prevalent in this vicinity during the past six months, and the cases of late seem rather increasing in frequency and severity. Children from two to ten have been the principal subjects of attack, although infants and adults have occasionally suffered from its mildest form. It seems to have no necessary connection with scarlatina, often preceding or following, and sometimes co-existing with it. In most instances the affection has been very mild in character, but sometimes has proved rapidly fatal.

The treatment most generally pursued has been chlorate of potassa internally, cauterization with nitrate of silver, cold cloths and anodyne embrocations to the tumefied cervical glands, and the free exhibition of stimulants and tonics, with liberal diet throughout the disease. The writer has used with good effect chlorate of potassa in *tar water*, for the removal of the fætor and the detachment of diphtheritic incrustations. It was administered internally, used as a gargle, and also for a nasal injection. In some of the severest cases of late, Prof. Woodward's mercurial plan has been resorted to with satisfactory results.

The following letter on the same subject is from Dr. J. W. Bright, of Lexington, Ky., and is published in the *St. Louis Medical and Surgical Journal*:—

I received your letter a few days since, requesting my mode of treating diphtheria. In reply I would say, I give the muriate of ammonia in full doses—say, to a child eight years old and upwards, ten grains every two hours (in solution), and ten drops of the sesquichloride of iron in the intermediate hours, and these are not to be omitted for thirty-six hours; then rest four or five hours, and give them again in like manner. Continue this treatment for four or five days, according to circumstances; but at first cleanse the stomach with a gentle purgative, if the bowels should not act, once in twenty-four hours give castor oil and ol. terebinth, one ounce of the former to one ounce of the latter. If the diphtheritic crust forms, or has formed to a great extent in the throat, remove it with a fine sponge tied on a stick; the sponge should be wet with a solution of the pure nitrate of silver, forty grains to the ounce, or the sulphate of copper, one scruple to the ounce of water; this should be used only once a day. The cure should be completed by the use of tonics; I have found beeberine the best. Diet nourishing.

I have treated three hundred and thirty-four cases after this method without the loss of one, and am now fully satisfied it is the proper mode of treating the disease.

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ON THE REGENERATION OF NERVES. BY OTTO HJELT.—In this paper, which is accompanied by very beautiful illustrations, the author does not agree with Waller in believing that the process of regeneration in divided nerves is to be regarded as a new growth of nerve tubes, proceeding from the central end to the finest peripheral branches. He finds the process to consist in an excessive production of nuclei in the central as well as in the peripheral portion of the injured nerve. This nuclei-development causes the swellings upon the ends of the divided nerves. The nuclei unite by processes so as to form a regular network of long rows of nuclei connected to each other. These nuclei belong to the connective-tissue lying between the tubes. All do not unite to form this net-work, but many undergo a process of fatty degeneration. The processes connecting the longitudinally-arranged nuclei become broader, their contours more distinct, and a differentiation of sheath and contents occurs. The nuclei now appear as varicose swellings on the young nerve tubes, whilst these become more and more in-

distinct. The contents are granular, and next the sheath of the tube a clear marginal layer is deposited. The same process occurs in both of the nerve ends, but it is most active in the central one. The author supposes that a great part of the old nerve tubes unite with these newly-formed fibres. He has never met with newly-formed fibres in the course of the peripheral distribution of nerves from which a part has been cut out; but he has seen primitive nerve fibres in a more or less advanced state of fatty degeneration. These latter fibres have probably not had their connection with the new fibres established. An exudation deposit Hjelt has never seen. The essential part of the process consists in an excessive formation of nuclei, a connective-tissue formation proceeding from the nuclei of the neurilema. "Since Virchow first proved that cell elements occur in the connective tissue, he has not only described the changes which these may undergo without changing their essential character, but he has also shown convincingly that it is to these cell elements that new formations of different kinds owe their origin."—*Edinburgh Medical Journal*, from *Archiv für Pathol. Anat. und Physiol.*

### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, FEBRUARY 16th, 1861.

#### DEATHS.

	Males.	Females	Total.
Deaths during the week, . . . . .	32	49	81
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	37.6	38.4	76.0
Average corrected to increased population, . . . . .	..	..	84.9
Deaths of persons above 90, . . . . .	..	..	..

#### Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
19	1	2	3	0	0	0	2

#### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	30.139	Highest point of Thermometer, . . . . .	53°
Highest point of Barometer, . . . . .	30.663	Lowest point of Thermometer, . . . . .	26°
Lowest point of Barometer, . . . . .	29.482	General direction of Wind, . . . . .	SW., SE. & NE.
Mean Temperature, . . . . .	38°.9	Am't of Rain (in inches) . . . . .	1.387

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 585.

		BAROMETER.					THERMOMETER.			SNOW.	Mean Amount of Cloud. 0 to 10.
		7 A.M.	2 P.M.	9 P.M.	Mean	Highest	7 A.M.	2 P.M.	9 P.M.		
Monday, Feb. 4,		29.63	29.72	29.75			12	26	11		
Tuesday, " 5,		29.71	29.64	29.66			0	12	18		
Wednesday, " 6,		29.28	29.24	29.21			25	37	31		
Thursday, " 7,		29.54	29.84	29.86			-3	-5	-5		
Friday, " 8,		29.53	29.44	29.40			2	21	18		
Saturday, " 9,		29.30	29.26	29.34			35	46	43		
Sunday, " 10,		29.30	29.17	28.93			43	44	43		

COMMUNICATIONS RECEIVED.—Trial of Richard S. Richardson and Sarah Healey for murder by Poisoning of Stephen Healey, at Auburn, N. H.—Affection of the Throat resembling Diphtheria following Varicella.—Poisoning by Scheele's Green—Arsenite of Copper.

BOOKS RECEIVED.—Ranking's Abstract of the Medical Sciences. (From Lindsay & Blakiston, Philadelphia.)—Transactions of the American Medical Association, Vol. XIII.—Diphtheria: its Nature and Treatment. Fiske Fund Prize Essay. By D. D. Slade, M.D. (From Blanchard & Lea, Philadelphia.)

DIED.—At Pittsfield, 12th inst., suddenly, Dr. John Eastwood, a graduate of the Berkshire Medical College at the last commencement. At Petersham, Dr. William Parkhurst, 77.

DEATHS IN BOSTON for the weeking Saturday noon, February 16th, 81. Males, 32—Females, 49—Accident, 1—apoplexy, 2—inflammation of the bowels, 2—disease of the brain, 4—inflammation of the brain, 1—bronchitis, 3—cancer (of the stomach), 1—consumption, 19—convulsions, 2—croup, 1—debility, 1—diabetes, 1—diphtheria, 2—infantile diseases, 5—puerperal disease, 1—dropsy, 2—dropsy of the brain, 7—erysipelas, 1—scarlet fever, 2—typhoid fever, 2—haemorrhage, 1—disease of the heart, 5—insanity, 1—congestion of the lungs, 1—inflammation of the lungs, 3—old age, 1—pleurisy, 1—teething, 1—unknown, 5—inflammation of the uterus, 2.

Under 5 years of age, 33—between 5 and 20 years, 3—between 20 and 40 years, 20—between 40 and 60 years, 13—above 60 years, 12. Born in the United States, 55—Ireland, 17—other places, 9.



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No. 4.

CANCER OF THE BLADDER.

[Communicated for the Boston Medical and Surgical Journal.]

THE following history of the case, furnished by Dr. MILLER, of the Navy, who had charge of it, was read before the Boston Society for Medical Improvement, Jan. 14th, by Dr. ELLIS. The specimen was shown at the preceding meeting.

In 1854, Patrick Dee, a carpenter in the U. S. Navy, received a blow, accidentally, from the end of an oar, just above the right pubes, and half an hour afterwards he passed a considerable quantity of blood from the bladder. He suffered but little inconvenience from the injury at the time, and it seems to have been forgotten until the latter part of 1858.\* On the 5th of December of that year, he came under medical treatment, at the Navy Yard, Charlestown, for hæmaturia, accompanied with spongy gums, foetid breath, emaciation, debility, and other indications of struma. The blood was ejected in coagula, and with difficulty. He complained of tenderness in the right hypochondriac region. On the first of January, 1859, a thorough exploration of the bladder was made, for calculus, and nothing found. About a month later the urine was tested, and "found to contain pus and blood." A few days later, a similar examination "disclosed the presence of blood, pus-globules and epithelium." The catheter and sound were met by an obstruction in the neighborhood of the prostate gland; and this was thought to be the seat of the disease.†

On the 15th of February, the record states, "a clot of blood, as large as the yolk of an egg, passed from the urethra." In the latter part of February, and during March, Lallemand's *porte-caus-*

\* Since writing this, I learn from Mr. Dee's widow, that he had a discharge of blood from the bladder in July, 1855, one year after the receipt of the injury; it came on after unusual exertion and fatigue. She also says, that he had similar discharges from that time every few weeks, until he came under regular medical treatment in December, 1858.

† The catheter was frequently used, at this time, to draw off the urine, which was sometimes retained for twenty-four hours, and at first there was great difficulty experienced in introducing it; which seems, more than any other fact, to have strengthened the opinion that there was a mechanical obstruction in the urethra.

*tique* was used, and caused great suffering, and, subsequently, an increased flow of pus. At this time the urine was retained for several hours, and its flow caused intense pain. Blood continued to pass irregularly; sometimes being absent in the discharges for several days, and then suddenly returning, a part of it coagulated and the rest mixed with pus and urine. The disease was very obscure, and caused much conjecture and difference of opinion. About this time, a large quantity of pus was discharged suddenly, occasioning the belief that an abscess had opened in or about the prostate gland; and for some time subsequently, rigors and night sweats occurred irregularly, with the discharge of large quantities of blood and pus. The discharges were very offensive. The catheter was frequently introduced to relieve the great pain and difficulty in passing urine. The treatment thus far had consisted of cups, leeches, fomentations, tonics, both mineral and vegetable, buchu, uva ursi, trillium, carbonate and chlorate of potass, narcotics, creasote, gallic acid, alcoholic drinks, generous diet so far as his appetite would allow, iodine, and, what gave him more local relief than anything else—ice-cold hip baths.

During the month of May, 1859, a great improvement in all the symptoms commenced. The cachexia gradually disappeared; the flesh and strength increased; the hue of the skin became natural, and there were intervals of ease in the urinary functions. Still, throughout the summer, the hæmaturia returned, irregularly, about every *two weeks*, and was always preceded by a pain extending up into the right hypogastrium, which ceased with the flow of blood. This hæmorrhage appeared partly as coagula, and partly fluid, and mixed with pus, and a disintegration resembling saw dust, more or less colored, and quite heavy, always subsiding, and allowing the urine to wash freely over it. Occasionally shreds of membrane also appeared. The most painful strangury generally accompanied the discharge of these excretions, and the patient was obliged, invariably, to squat down upon the floor, with a small vessel under him—usually a cup or saucer. This was the only position in which he could produce a discharge of any kind from the bladder. At night, he was obliged to rise from his bed and assume this posture. The necessity for frequent and instant micturition also increased, and the suffering was always much greater at night, and in bed. This was partly because the upright position was, as a rule, less painful than the horizontal; but mainly, because the heat and irritability of the affected parts always increased at night. A sense of burning in the hands and soles of the feet, was also a frequent source of suffering at night. It was not unusual for him to rise several times during the night, and sit for some time in a tub of ice-cold water, to reduce the heat of the tissues underlying the bladder, and induce a flow of its contents. At these times, his groans and exclamations were frequently heard in the adjoining houses; and he would sometimes quit the bath



tub, after ineffectual attempts to empty the bladder, and roll upon the floor in a frenzy of impatience from his suffering.

In August, 1859, after some days of unusual suffering, he was suddenly relieved, and remained for two or three months comparatively free from pain, but with unmistakable evidence of the steady advance of the local disease. In December, his sufferings increased again, and about the 9th of February, 1860, a swelling, of stony hardness, and very sensitive, made its appearance in the track of the right cord, just above the pubes, and attained the size of an inch or more in diameter. Little or no lancinating or other pain attended it, but the discharges from the bladder became, at this time, more diversified and ill-conditioned, and his sufferings, if possible, greater than ever. On the 13th of February, Dr. Morland visited him in consultation; and the discharges from the bladder being submitted to the microscope, by Dr. Ellis, the record states that there were found very large cells, of various shapes, containing large nuclei, with large nucleoli. They could not be distinguished from those belonging to the most malignant growths. The enlargement of the cord was freely leeches, with marked advantage. It began to subside, but remained quite as *hard* in its reduced state. It finally disappeared entirely. In April and May, he had severe, very copious and prostrating hæmorrhages from the bladder; the blood flowing of a bright color, but becoming very dark after standing for some hours, mixed with the other discharges. At one time, it was thought to amount to a quart in twenty-four hours. At first, creasote and the acetate of lead, freely used, seemed to check these hæmorrhages, but afterwards produced little or no effect, except to constipate.

On the 18th of May last, Mr. Dee was visited by Dr. J. Mason Warren and Dr. Morland, in consultation, and a partial exploration of the bladder was made by the former gentleman. On the 26th of May, the examination was repeated, the patient being under the influence of ether. The record states that "the bladder was found to be in an ulcerated, thickened condition; sacculated and of small capacity." "No disease of prostate or rectum."\* Sulphuric acid and creasote were ordered and exhibited; but the former produced so much disturbance of the bowels, that it was discontinued. In June, he had another hæmorrhage, lasting forty-eight hours; and a few days later, he was seized with diarrhoea and vomiting, which continued for several days, and brought him to death's door. From this time he declined steadily. Œdema of the face and feet made its appearance. By August, the discharges of blood and pus became very much lessened, and the urine, the greater part of the time, was quite limpid and colorless. Still he was not free from strangury; and the desire to pass urine was constant and tormenting.

\* A microscopic examination of some diseased shreds obtained by this exploration, was made by Dr. Ellis, who found cells similar to those noticed in the urine, in February.

On the 8th of September last, he was detached from the Navy Yard, and, from that time, resided in Charlestown. Soon after this removal he had a hæmorrhage, which consisted in part of *cones* of coagulated blood, with sloped bases, about the size of a filbert, but varying in size, though perfectly and singularly uniform in shape. They were covered with a film, or pellicle of fibrine, and were probably casts of some particular cavity of the diseased surface, into which a blood-vessel had opened. These coagula were discharged in considerable quantity, for about a week, when they suddenly ceased to make their appearance, and the urine became limpid again. After this he had but little hæmorrhage, and his acute sufferings declined with his strength. He began, for the first time, to discharge the contents of his bladder in bed, in the horizontal posture. The discharge of pus almost ceased until three or four days before his death; when, after a retention of five or six hours, of all discharges, a quantity of pus flowed off as he sat in a tub of hot water. This pus was discharged from this time until his death, which took place on the 27th of December.

As regards the treatment of this case, it would be difficult to say what medicines and appliances, at all applicable to it, were *not* used; and it may be stated, in a general way, that the whole list of alteratives, astringents, tonics, narcotics, sedatives, antispasmodics, diuretics, refrigerants, rubefacients, baths, fomentations and injections, was exhausted upon the suffering patient.

The following account of the *post-mortem* appearances is furnished by Dr. ELLIS:—

Body considerably emaciated. Integument of a light-yellow color throughout. About a pint of serum in each pleural cavity. Great œdema of the lungs. Some caseous and cretaceous matter at the apices of the lungs. Heart flaccid and pale; no valvular disease.

Stomach healthy, with the exception of some cadaveric softening of the large extremity. At least a quart of turbid, grayish serum in the peritoneal cavity. Spleen lobulated; texture normal. Liver healthy. Right kidney nearly twice the size of the left; many small irregular portions of its substance were of a yellow color, evidently owing to inflammation, although no well-marked abscesses were seen. The appearances were those usually seen in nephritis. Left kidney small and pale. Ureters much dilated and tortuous. The posterior and superior portions of the walls of the bladder were thickened and mostly converted into a soft, whitish tissue, the inner surface of which had an irregular, broken appearance. This contained much whitish fluid, and, on microscopic examination, was found to contain cells similar to those previously found in the urine and the small fragment removed by the catheter. Urethra and prostate healthy.



## THE EPIDEMIC OF SMALLPOX IN 1859-60.\*

[Extracted from a Report read before the Boston Sanitary Association, by ROBERT WARE, M.D., and communicated for the Boston Medical and Surgical Journal.]

THE tables of mortality† for this city show that from 1811 to 1839, a period of twenty-eight years, only fifty-two deaths were caused by smallpox; while in the twenty-two years from 1839 to 1861, smallpox has caused fourteen hundred and ninety-one deaths, and has been epidemic at least four times. The population increased from thirty-four thousand in 1811, to eighty thousand in 1839, and to one hundred and eighty thousand in 1861.

The State law requiring the removal of persons affected with the disease to a separate hospital, was repealed in 1838, so that the increase of mortality from this cause is coincident with the repeal.

The last epidemic began in January, 1859, and the first case appeared in Bridge Street Court. On January 2, 1859, Dr. W. E. Townsend was called to attend a man at No. 2 Bridge Street Court. This man, who had never been vaccinated, had that day arrived from New York, and Dr. Townsend found the eruption of smallpox just appearing. This case was at once reported to the police, and, so far as the committee have been able to ascertain, was the first case which occurred.

On January 14, a case of modified smallpox was seen by the Dispensary physician, in Hamilton Street, Fort Hill. The patient was a resident, and knew of no exposure to the disease. No other cases resulted from this one; it has not been possible to ascertain whether the patient was at any time in the vicinity of Bridge Street. It has been mentioned to show that there were, perhaps, other distinct centres of contagion than the one in Bridge Street.

The case in Bridge Street was at once followed by others. In the same house a child died in convulsions as some eruptive disease was appearing. January 24, Dr. H. K. Oliver was called to a case of smallpox, at No. 10 Bridge Street Court, and on January 25, to one at 24 Bridge Street.

This locality is occupied by Irish families, of whom several live in each house. The house first mentioned was occupied by such families, and its lower story was used as a small grocery store.

On February 7 a child died of the disease at No. 4 Bridge Street Court, and on March 7, a death occurred in Grove Street. This was followed in April by three more in that vicinity. In May,

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\* This account of the recent epidemic of smallpox in Boston forms part of a report upon smallpox and vaccination prepared, at the request of the Sanitary Association, by Dr. J. C. White and myself. The labor of getting the materials for this account was fully shared by Dr. White, and I have merely compiled the results.

• I would take this opportunity, in behalf of the Committee of the Association, of thanking those gentlemen who so kindly sent in the desired returns, and of acknowledging the courtesy of Mr. Apollonio, the City Registrar, in assisting our examination of his records. R. W.

† Shattuck's Census of Boston. Appendix.

deaths were reported from the North End, from Wards Seven and Eight, and from South Boston.

The disease seemed to follow very much the course of the foreign population, moving from Bridge Street down towards the North End, and centering in Commercial, Hanover, and North streets.

The epidemic lasted till October, 1860, a period of about twenty-one months. In this time three hundred and eighteen deaths occurred from it. These were distributed through the different months as follows:—

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
1859		1	2	5	10	14	15	12	20	16	23	38	156
1860	45	27	19	18	13	13	13	11	3	0	0	0	162

There was a pretty steady increase through the summer and autumn of 1859, and the stress of the epidemic fell upon the colder months, one hundred and thirty-four deaths having occurred in the four months of November, December, January, and February.

*Locality.*—The deaths were distributed throughout the city as follows:—

Ward.	Popula.*	Dths.	Ward.	Popula.	Dths.	Ward.	Popula.	Dths.
Ward 1.	10,017	97	Ward 6.	8,870	14	Ward 11.	19,393	8
" 2.	8,476	9	" 7.	5,301	19	" 12.	13,269	17
" 3.	9,609	30	" 8.	9,103	9	Deer Island.†		22
" 4.	17,055	6	" 9.	10,866	5	Rainsf. Isl'd.†		34
" 5.	9,920	7	" 10.	15,022	16	Smallpox hos.		14

The seventy deaths which occurred at the three public institutions should, most of them, be distributed among the wards, but no records were kept of the localities in the city from which patients were brought, except at Deer Island. Of the twenty-two deaths reported there, sixteen were of persons taken from shipboard; in four cases the locality was not known, and two had come from Ward Seven.

Wards One and Three were the most severely visited, more than one-third of the entire mortality having occurred within their limits; the largest number of deaths in any one street was in North Street and Square, where seventeen occurred; in Hanover Street there were fifteen; in Commercial Street there were eleven; in Prince street nine; in Nassau Street seven. The deaths, both in Hanover and North Streets, were in the houses at the lower parts of those streets. All the deaths in Hanover Street were at numbers above 300, and in North Street they were all at numbers above 144, which is at Richmond Street.

Three deaths was the largest number which occurred in any one house, and three were reported from 443 Hanover Street, and three from 144 North Street. In a large majority of instances the

\* U. S. Census of 1850.

† Pauper Hospitals.



houses in which the disease prevailed were occupied by several families, and these families were chiefly Irish.

The tendency of the disease to centre in particular spots, is shown by the fact that in the circle enclosed by Charlestown, Blackstone, and Commercial streets, one hundred and eleven (111) deaths occurred. In the space included by lines drawn through Andover, Causeway and Leverett streets to the water, sixteen (16) deaths occurred.

*Age and Sex.*—The following table shows the distribution of these three hundred and eighteen deaths, by age and sex:—

AGES.	M.	F.	Not known.	Total.
Under 18 months - - - - -	36	26	6	68
18 months to 5 years - - - - -	36	26		62
5 years to 10 years - - - - -	11	10		21
10 years to 15 years - - - - -	3	0		3
15 years to 20 years - - - - -	10	5		15
20 years to 30 years - - - - -	67	26		93
30 years to 40 years - - - - -	24	3		27
40 years to 50 years - - - - -	13	5		18
Over 50 years - - - - -	6	5		11
Total - - - - -	206	96	6	318

Two hundred and six males to ninety-six females, or a little more than two to one. This preponderance of males appears even at an age so early that the amount of exposure in the two sexes must have been equal. The excess of male deaths in children below five years of age is wholly out of proportion to the excess of males living at that age. It is commonly supposed that the liability of the two sexes is about equal, and this difference is probably accidental. The large excess of male deaths between 20 and 40 years (91 to 29) is probably due in great part to the more exposed condition of men in their various occupations.

The mortality was most severe among infants and young children, one hundred and thirty (40.88 per ct.), being under the age of five years. This may be explained by the well-known fatality of the disease in early life, and by the fact that, among the foreign population especially, very many children remain unvaccinated until the age when vaccination is necessary to enable them to attend school. The most important point in this connection is the mortality of young adults; ninety-three (29.24 per ct.) were between twenty and thirty years of age. The cause of the mortality at this age may, perhaps, be found on examining the birth-places of those who died.

*Birth-place.*—The birth-place was ascertained in three hundred and three cases. (See table on next page.)

This table shows that one hundred and forty-two (142) of the whole number (303) were born in Boston. Of these, 117, nearly 85 (82.4) per ct. were below the age of five years, that is, below the age at which vaccination becomes necessary to secure an en-

trance to the public schools; 15 were between 5 and 10 years, and only 4 were between 20 and 40 years. Thirty-five were born in Maine, 22 of whom were between 20 and 30 years, 4 between 30 and 40 years, and 5 between 40 and 50, i. e. 31 were between 20 and 50 years. Thirty-four were born in Ireland, 4 of whom were between 15 and 20 years, 21 between 20 and 30, 6 between 30 and 40, and in all 28 between 20 and 50 years. Twenty-five were born in the British Provinces, of whom 4 were between 15 and 20 years, 14 between 20 and 30 years, and 5 between 30 and 40 years. Twenty-one were born in Massachusetts, out of Boston, of whom 5 were between 20 and 30 years, 3 between 30 and 50 years, and 6 were above 50 years. Fourteen were born in New Hampshire, of whom 6 were between 20 and 30 years of age, and 2 were between 30 and 40 years.

Birth-place.	Under 15 mos.	15 mos. to 5 yrs.	5 yrs. to 10 yr.	10 to 15 yrs.	15 to 20 yrs.	20 to 30 yrs.	30 to 40 yrs.	40 to 50 yrs.	Over 50 yrs.	Total.
Boston,	62	55	15	1	2	4	0	2	1	142
Maine,	0	2	0	0	1	22	4	5	1	35
Ireland,	0	0	1	1	4	21	6	1	0	34
British Provinces,	0	0	1	0	4	14	5	1	0	25
Massachusetts,	1	2	2	1	1	5	1	2	6	21
New Hampshire,	0	1	2	0	1	6	2	1	1	14
West Indies,	0	0	0	0	0	4	2	0	0	6
Virginia,	0	0	0	0	0	1	1	1	1	4
New York,	0	0	1	0	0	2	0	1	0	4
Vermont,	0	0	0	0	0	2	0	1	0	3
England,	0	1	0	0	0	1	1	0	0	3
Connecticut,	0	0	0	0	0	1	1	0	0	2
Pennsylvania,	0	0	0	0	1	1	0	0	0	2
Western Islands,	0	0	0	0	0	1	0	1	0	2
New Jersey,	0	0	0	0	0	1	0	0	0	1
Delaware,	0	0	0	0	1	0	0	0	0	1
Florida,	0	0	0	0	0	1	0	0	0	1
France,	0	0	0	0	0	0	1	0	0	1
Germany,	0	0	0	0	0	0	1	0	0	1
Liberia,	0	0	0	0	0	1	0	0	0	1
Total,	63	61	22	3	15	88	25	16	10	303

Of the eighty-eight deaths of persons between twenty and thirty years of age, whose birth-places are given, 4 were born in Boston, 22 in Maine, 21 in Ireland, 14 in the British Provinces, 5 in Massachusetts, 6 in New Hampshire, and the rest were variously distributed. Of 25 deaths between 30 and 40 years, 4 were born in Maine, 6 in Ireland, 5 in the British Provinces, 1 in Massachusetts, &c.

One hundred and thirty children under five years of age died; of these, one hundred and seventeen (117) were born in Boston. One hundred and twenty (120) adults between the ages of twenty and forty died; of these, 26 (21.6 per ct.) were born in Maine, 27 (22.5 per ct.) were born in Ireland, 19 (15.83 per ct.) were born in the British Provinces, 6 (5 per ct.) in Massachusetts, 8 (6.6 per ct.) in New Hampshire, and 6 (5 per ct.) in the West Indies, while



only 4 (3.4 per ct.) were of Boston birth. Of the 142 deaths which occurred among those born in Boston, there were only 10 of persons over 10 years of age.

It is well known that many of those who come to this city from Maine, New Hampshire, Ireland, the British Provinces, &c., are unprotected by vaccination, while we are justified in assuming that, with scarcely an exception, the adult population, born in Boston, has been vaccinated. The difference in the mortality among the adult population born in Boston, and of the adult population born elsewhere, is a strong proof of the efficacy of vaccination in protecting from death at the most active and exposed period of life.

Maine and Ireland furnish the largest number of deaths at the age in question; the Provinces come next on the list, and New Hampshire, Massachusetts, and the West Indies, follow.

It might be urged that, as the bulk of the young adult population, apart from those born in the city, is made up of natives of New England, the Provinces, and Ireland, it follows, of course, that most of the deaths at that age will be among them; but it is well known that there is a considerable German population at the same age, and yet only one death of a person born in Germany is recorded.

In view of the facts shown by the preceding tables, it is evident that the neglect of vaccination in some parts of New England, in Ireland, and in the British Provinces, is the cause of a considerable loss of life, and is a source of danger to any community in which natives of these places may be living.

The occupations of those who died were ascertained, in ninety-four instances; of these, 37 were sailors. The numbers are too small to allow of any definite conclusion being drawn from them, and merely show that the disease fell with especial severity upon that class.

Three hundred and eighteen deaths by smallpox, if we estimate the average mortality at one in six, indicate about nineteen hundred cases of the disease, in an unmodified form. In attempting to estimate the amount of sickness caused by the epidemic, it becomes necessary to learn the number of cases of modified smallpox also.

For this purpose a circular was issued to all the practitioners of medicine in the city, asking for returns of the number of cases of smallpox attended (dividing them into two classes, according as the disease occurred in persons wholly unprotected or in those supposed to be protected), and of the number of deaths under each head. Precise and reliable answers were received from about ninety gentlemen, and from these answers the following table is drawn up.

It will be seen that of 1,597 cases, 1,289 (80.71 per ct.) occurred among those previously protected, and that 308 (19.29 per ct.) were among the unprotected, but the mortality among the unpro-

tected was 23 per ct. (nearly one death in every four cases); while among the protected it was 1.63 per ct. (about one death in every sixty-one and a half cases). The ratio of the whole mortality (92) to the whole number of cases (1,597) is 5.76 per ct., or about one death in every seventeen and a half cases, including both the protected and the unprotected.

	Cases.	Deaths.	Ratio per ct. of deaths to cases.
Unprotected	308	71	23.
Protected	1289	21	1.63
Total	1597	92	5.76

The returns do not enter upon the question of re-vaccination.

The number of deaths in these returns (92) is rather less than one-third and more than one-quarter of the whole number of deaths (318); if therefore we multiply the numbers in the returns by three and a half, we shall get an approximate estimate of the actual amount of disease caused by the epidemic and represented by the three hundred and eighteen deaths.

[*Estimated.*]

	Cases.	Deaths.	Per ct. of deaths to cases.
Unprotected	1078	249	22.17
Protected	4511	73	1.61
Total	5589	322	5.76

This estimate gives a total of 5,589 cases, which is probably below the real number. The population of the city is about 180,000, and our estimate would show that one person out of every thirty-three was attacked by the disease, with greater or less severity, and that in this community a death from smallpox indicates about eighteen cases of the disease of various degrees of severity.

#### RATIONAL MEDICINE—LETTER FROM DR. VALERJ.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—I send you herewith a few extracts from a letter received not long ago from Dr. VALERJ, of Rome. As Dr. Valerj has been recently elected an honorary member of the Mas-



sachusetts Medical Society, his opinions on the present state and prospects of the profession may not be uninteresting to some of your readers. Dr. Valerj's letters give evidence of the progress of Rational Medicine abroad, which several months' observation of the writer abundantly enables him to confirm; and he returns to find propositions, which, ten years ago it was considered heresy to affirm, now uttered as axioms by some who were then loudest in denunciations. "That the cause is growing" here and elsewhere, to use the words of a venerated friend in a private letter a few days ago, "we have sufficient evidence in Sir James Clarke's letter to Dr. James Jackson, Dr. Ward's oration on Rational Medicine before the Hunterian Society, and Dr. Gross's review of 'Nature in Disease,' in the *North American* (Phila.) *Medico-Chirurgical Review* for July, 1860; and other things that might be cited." In fact, it will not be surprising if, ere long, when the emotions which the poet, "soaring in the high reason of his fancy," has aroused, shall have sobered down to the common level, the profession be found not merely admitting, but openly avowing the *plain prose* of Dr. Moore, "that the difference between a good physician and a bad one, is certainly very great; but the difference between a good physician and no physician at all, in many cases, is very little"—so far as the administration of drugs merely is concerned.

But—I keep you from the extracts; here they are.

Yours very truly,

B. E. COTTING.

Roxbury, Feb. 20, 1861.

"Several weeks ago, I received a pamphlet entitled 'Brief Exposition of Rational Medicine,' &c. &c., by Jacob Bigelow, M.D., and supposing that it comes from you, I thank you very much. I have read it over and over again, and every time with more pleasure, because the opinions it puts forth are *quite in accordance* with my own views. The pamphlet contains a clear exposition of the present state of medical practice not only in America, but I would say in all Europe. You will doubtless be surprised to hear that Rome itself, which has the particularity in everything belonging to it, of never changing its principles, systems and forms, either in religion, laws or government, in medicine, unfortunately, sustains the same numerous, and often contradictory changes as those of other cities; and is favorable to any medical system, which is fashionable or in vogue. Strangers visiting the *Eternal city* are particularly apt to fall into the hands of medical practitioners, who are totally unrecognized; and although patients are frequently sacrificed by their *multifarious* prescriptions, their reputations remain intact, thanks to the change every year of its new visitors. Another reason is, that strangers remain satisfied, when any novelty is proposed to them, and when they are treated (or ill-treated) with *as many remedies* as the disease presents *symptoms*. I have frequently seen foreign patients accustomed to be over-dosed and drugged in every, though little, indisposition; so that I have had great difficulty at times to induce them to let nature have its course, and to be satisfied with diet and care only. Therefore you see, my dear doctor, that both physicians and patients, in our days, frequently ig-

nore the celebrated Professor Eloy's sentiment, clearly expressed in these words—'Il est bien des cas, où la medecine doit être plus expectante qu'agissante; la finesse de l'Art consiste même souvent à ne rien faire, puisque c'est quelquefois un excellent remède que de n'en pratiquer aucun.'

"In truth, the duty of rational physicians consists in the knowledge and scrupulous attention of pathological processes, in order to respect them when they go on regularly, and to come in aid with medicines only when they happen not to do so. In fact, you well know, my dear doctor, that the divine Greek professor expressed in the following classical *aphorism* the only aim and action of a physician at a patient's bed:—'*Nature works the recovery. Physician, look only to its efforts if sufficient; if not, aid them when they are weak, lower them when too strong.*' With these few words Hippocrates planned at once the philosophical and scientific foundation of our art. Medicine grew up at once a science, and the author of the aphorism the greatest and most rational of physicians."

"Now to end with the pamphlet, I must tell you that I read also with great satisfaction the 'Paradise of Doctors.' The fable exactly unfolds the celebrated adagium—*Ridendo corrigere mores.*"

"Mrs. Fowler, M.D., of New York, came to Rome a short time since, and called upon me. I was much pleased with her acquaintance, and we visited together the great Hospital of Santo Spirito, &c. She knows midwifery well; and on that branch I dared to give her some advice in accordance with the principles of our Rational or Hippocratic medicine—reminding her that the most celebrated accoucheurs were those who spared the greatest part of the operations which the common practitioners had thought necessary to perform; parturition being a function so closely connected with the conservation of species, Nature has been very sedulous and perfect in it. Hence the surgical hand ought very rarely to interfere. In fact, we happen to see also in the most difficult cases of labor, that *natura sibi ipsa invenit vias, et inerudita existens quæ expediunt perficit, etiam ubi conatus nostri desiere.*"

## Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

DEC. 31st.—*Melanosis.* Dr. HODGES exhibited a small tumor, not larger than a filbert, removed from the lower and inner part of the thigh. The patient, a healthy German, 25 years old, had at this point what he called a common boil, which ran the usual course, and was about well, when, whilst exercising in a gymnasium, he irritated and bruised the tender cicatrix. There then sprouted forth this excrescence, which, of a florid aspect, bleeding readily, and resisting treatment of various sorts, was removed three months after its first appearance.

The tumor, which involved only the skin, was of a well-marked melanotic character, and under the microscope, was found by Dr. ELLIS to contain nuclei of no great size, but with comparatively large nucleoli. The appearances, although not such as belong to the most



malignant growths, were of very suspicious character. The specimen was exhibited on account of its history, which, in the age of the patient, the antecedents, and rapidity of the growth, presented peculiarities of considerable interest.

JAN. 28th.—*Aneurism of the Aorta just above the Diaphragm.* Dr. JACKSON showed the specimen, which he had received from Mr. J. E. Cobb, a student at the Chelsea Hospital. It was of a regularly rounded form, about seven inches in length, and three inches between the upper and lower orifices, which were very defined. For the most part, the inner surface presented the appearance of an artery in a state of chronic disease, but not ossified, the sac seeming to be formed by a dilatation of the vessel. The aorta, which had been preserved from just above its origin to the middle of the abdomen, was moderately diseased.

The patient was a man about 50 years of age, who had been treated in the Chelsea Hospital, and elsewhere, occasionally, for more than two years past, for a pain in the lumbar region, mostly on the left side, and which was generally supposed to be connected with the kidneys, though there were no other symptoms of affection of those organs. The weight of the patient in health would have been about 140 lbs., but he became much emaciated. Death was at last quite sudden, and owing to a rupture of the aneurismal sac, an effusion into the left pleural cavity of about six quarts of blood having been found on dissection. Mr. C. found the bodies of three of the vertebræ extensively absorbed, and the head of the ninth rib detached. The heart was smaller than natural.

JAN. 28th.—*Patent Foramen Ovale.* Dr. BOWDITCH reported the following case:—

The patient was a lady, 45 years old. In early girlhood, and till the age of 19, she was able to indulge freely in every sport, even of the most active kind, in all of which she was foremost. These exertions she bore without the least difficulty. At the age of 19, while dancing at a ball, she first noticed dyspnœa on motion. A few years subsequently she married, but never bore children. From the above-named period the dyspnœa had continued to increase, but only showed itself when going up stairs, or walking up a hill. She never had a severe paroxysm except once, while running, and after doing so, she thought, on one occasion, she should die, the breathlessness was so great. There were no accessions at night. Palpitation had never been noticed; but a certain lividity of the lips was perceptible when the breathlessness was greatest. She had had occasionally a cough, but nothing for which she had ever consulted a physician.

Her digestive, menstrual and renal functions had been perfect. She had never had œdema of the feet. Dr. Bowditch saw her, in consultation with Dr. James Jackson, five years ago. At the first examination it was evident that breathlessness was easily excited, and with it the lividity of the lips, but these were specially excited by a trial of going up a flight of stairs. The pulse was perfectly normal, and the physical signs about the heart were those of *absolute health*; and there was no hypertrophy. Neither Dr. Jackson nor Dr. Bowditch could discern any positive evidence of organic disease, and the affection was regarded by both as functional, although differing from most cases of simple functional derangement.

Digitalis, &c., were tried for a short time, but soon all treatment

was given up, save the avoiding of everything tending to cause the symptoms.

The symptoms continued slowly but steadily to increase. The breathlessness finally became so great that the patient could not walk at all, even on a level, without great suffering, and the lividity of the lips was more marked and more permanent. The cough, still occasional and hard, had never been continued, so as to need medical advice. For the past five years the urine had often been dark, with a copious sediment.

Dr. Bowditch was again called about two months ago, and found the patient suffering extremely with permanent dyspnoea, and a sense of constriction and pain across the front of the chest, with other symptoms as above stated. Still there were no physical signs of cardiac disease, except that the heart, on percussion, seemed a little larger than usual. There was no irregularity, no murmur. The pulse at the wrist was good. There were trivial signs of disease at the apex of one lung, but not enough to attract much notice, and totally incapable of explaining the severe symptoms. Examination of the urine showed only urates—no albumen, no casts. The patient sank in a few days, with great pain and distress across the chest, intense dyspnoea, and extreme lividity.

At the *autopsy*, the right cavities of the heart were found much hypertrophied; the left were normal, or nearly so. The foramen ovale, an inch in diameter, was round and smooth, with a thin edge. All the valves were perfectly normal. The lungs had old tubercular disease to a small extent, in both apices. Owing to circumstances beyond control, the other organs were not specially examined, but they seemed normal.

The curious points in the case, Dr. B. thought, were these: 1st, the fact that the foramen ovale began to be permanently open at the age of 19, after dancing. The case probably was one of those in which a valvular opening existed before it became permanent, and had gradually increased during the thirty-eight years of the patient's subsequent life. Such cases are on record, though rare. 2d, the absence of all physical signs was interesting; and yet, *a priori*, there were no reasons why this lesion should cause a murmur. It does, however, at times produce an obscure soufflé.

Dr. JACKSON said the case was probably valvular from birth, becoming direct in after life, with the usual consequences. He showed several dried specimens, preserved in the cabinet of the Society.

JAN. 28th.—*Death from Pyæmia following a Blow.* Dr. HODGES reported the following case, which he had an opportunity to see, and the notes of which were communicated to him by Dr. J. S. H. Fogg, of South Boston, in whose practice it occurred.

A boy, ten years old, was injured by an accidental fall on the ice, Tuesday, Dec. 25. He complained no more of pain afterwards than might be expected from an injury which would have no ill effects. He walked home, slept well all night, and went to school the next day. He returned at noon, however, complaining of severe pain in the lower part of the spine, and to the right side of the sacrum. Domestic remedies were used without avail until the 28th, when Dr. Fogg was called. He found him in great suffering, the pain being referred to the above mentioned spot, but he was able to stand, and to walk a few steps. There was nothing found externally, or on examination,



to show the seat of the injury. He obtained no relief from fomentations, leeches or opiates on that day, or the next, the 29th. On the 30th there was slight redness over the sacrum, extending and increasing on the 31st and 1st of Jan. On the 2d, he was delirious, and had paroxysms of intense pain every few minutes. A small abscess had now formed directly on the median line of the sacrum, and was opened, but he was evidently failing, and died on the morning of the 3d, without having been relieved from his pain, and after having been comatose for a few hours. He made no complaint of suffering in any other part except the seat of the injury, and had always been well before the accident.

At the autopsy, death was found to have been caused by pyæmia, deposits of pus being found in the lungs, heart, liver, and kidneys. None of the pelvic bones were found fractured, or otherwise injured.

JAN. 28th.—*Obstruction of the Vena Portæ with Encephaloid Matter.* Dr. JACKSON showed the specimen, which he had received from Dr. Anson P. Hooker, and which was taken from a patient of Dr. Moses Clarke, of East Cambridge. The examination was necessarily hasty, but the case seemed to be one of primary encephaloid disease of the liver, which, as Dr. J. remarked, is not very rare here, however it may be elsewhere. The trunk of the vena portæ, and its branches within the liver so far as they were traced, were as completely distended with encephaloid matter as if they had been injected. There was some cancerous deposit upon the under surface of the diaphragm, which adhered slightly to the liver, and there was a small mass of the same in the mesentery; no other disease being seen. The stomach, which is so often cancerous in these cases, was healthy. The kidneys were not examined, nor were the organs of the thorax.

Dr. J. thought the case a very interesting one, negatively, in connection with that of the common granulated liver, in which both the ascites that is so frequently found, and the enlarged spleen that is now and then seen, are explained by an obstruction in the portal circulation. Nothing could be more complete than the obstruction in the present case, and yet there were but about two quarts of serum in the peritonæal cavity, and the spleen was not enlarged. He remarked, however, that he had several times seen the vena cava quite as completely obstructed, and without causing œdema.

The patient, in the above case, was a man, 76 years old, who had been sick for several months, and confined to his bed for two or three weeks; his chief complaint being of flatulence and of severe pain in the region of the liver, the hard and defined edge of which was felt towards the left side for some time before death. His complexion was naturally pale and sallow.

JAN. 28th.—*Aneurism of some Vessel about the Root of the Mesentery.* Dr. JACKSON showed the specimen, which was taken from a patient of Dr. H. G. Clark, a delicate boy, only 14 years of age, and subject to chorea. Six weeks before death, he complained of the calf of his left leg, which was swollen, tender and painful, but white; this, with feverish symptoms, subsided in a few days, and did not return. The pain then attacked him in the left side of the abdomen, not constant but sometimes violent, with prostration, clay-colored discharges, and dark urine. These symptoms, excepting the pain, yielded during the second week, the urine became clear and abundant, and he lingered in this way for three or four weeks, when he was suddenly seized, three

days before death, with convulsions, precisely like the epileptiform convulsions of a puerperal patient, and in one of these he died. The urine was examined several times, but no albumen was found until after the convulsions, and then only during their occurrence; there being no albumen in the urine when the convulsions ceased.

The aneurismal sac was quite defined, and about as large as the top of the thumb; parietes rather brittle, but quite smooth on the inner surface. A vessel, about the size of the superior mesenteric artery, entered it, but none could be found going from it, though a vessel of considerable size, that seemed to have been obliterated, was found very near to the sac. In connection with this fact, Dr. J. said that he had remarked, as others had, that the artery is liable to be obliterated when it arises from the sac, in cases of aneurism of the cœliac or superior mesenteric artery. What particular artery was affected in the present case could not be ascertained, but it was rather supposed to be the superior mesenteric; the aneurism being situated probably from one to two inches from the aorta. The cause of death was an extensive laceration of the sac, and an effusion of blood into the mesentery and neighboring cellular tissue, to such a degree that the parts, which were shown, looked like a great thick mass of coagulated blood. Nothing unusual was observed in the kidneys, and the head was not examined.

JAN. 28th.—*Calculus from the Bladder of a Turtle (Emys Floridana)*. Sent to the society by Prof. JEFFRIES WYMAN, of Cambridge, with the following report of the case:—

“This specimen was given to me by Dr. A. S. Baldwin, of Jacksonville, East Florida. It is of a nearly spherical shape, somewhat tuberculated on the surface, and about 2 1-8 inches in diameter. In attempting to make a section through it with a fine saw, it broke, and was then shown to consist of an external shell, containing a crumbling mass, with traces of concentric arrangement. When first opened it was somewhat moist within, but soon became dry and friable. There were also embedded in it masses of what appeared to be inspissated mucus. The weight of the tortoise would have been about 15 lbs.

“The following is the result of the chemical examination made by Prof. Charles W. Eliot, of Cambridge.

“Before the blow-pipe, the portions from different parts of the calculus blacken, and evolve the usual odor of charred animal matter. They contain varying proportions of organic matter, but are alike in all other respects. Under the blow-pipe, an infusible, strongly alkaline, white ash is left. This is insoluble in water, dissolves with effervescence in cold dilute acetic acid, leaving a few shreds and flakes of organic matter. It dissolves readily in strong nitric acid, and on evaporation has a yellow color which is deepened by ammonia. No precipitate by ammonia from a solution in chlorohydric acid. These reactions indicate that the calculus consists of *carbonate of lime*, mixed with more or less organic matter.”

Prof W. remarked upon the specimen as an interesting one, for its composition and for its origin.

JAN. 28th.—*Ovum blighted; no Trace of Embryo*. Dr. HOOKER showed the specimen. On the 24th of January the miscarriage took place, having been threatening for the last fortnight, from the shock of a fall. The last menstrual period ceased on the 22d of October. The ovum is only about two inches in diameter, perfectly fresh, and



the membranes seem quite healthy ; but no trace of an embryo, nor even of an umbilical cord is to be seen. Dr. Jackson had opened and examined it under water, and was sure that nothing had escaped.

## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, FEBRUARY 28, 1861.

**MALPRACTICE SUIT—JUDGE'S CHARGE TO THE JURY.**—We copy, below, from the *Elmira* (N. Y.) *Daily Press* of Feb. 10th, an interesting charge of the judge in a recent suit for alleged malpractice. We think, if he had been a surgeon, he might have made still another point in favor of the defendants, namely, that even with a stiff knee the patient's condition after the operation was no worse, if not decidedly better, than before. The whole tone of the charge is sensible and properly appreciative of the true responsibility of surgeons in such cases.

This action was brought by Daniel S. Hamilton against Drs. Squire, Wey and Smith, for damages alleged to have been sustained by the plaintiff in consequence of a surgical operation performed upon his knee by the defendants. The operation consisted in the removal of a loose or floating cartilage from the knee-joint, by means of what is known among surgical writers as the *valvular mode of incision*. Inflammation of the joint ensued, its disorganization followed, and the ultimate result was a stiff knee; the limb being slightly flexed and bowed laterally, in consequence of destruction of the articular cartilages, and the expanded extremities of the bones entering into the composition of the joint, on its inner side. Damage was claimed to the amount of \$5,000. After a protracted trial, the case was submitted to the jury, in the following charge by Judge Campbell. The jury failed to agree, standing one for plaintiff and eleven for the defendants.

**GENTLEMEN OF THE JURY,**—Every person who enters a learned profession, whether the law or surgery, undertakes to bring to it the exercise of a reasonable, fair and competent degree of skill.

Invariable success does not attend professional men, any more than those engaged in other pursuits. Indeed, success must with them sometimes depend on other instrumentalities than mere skill. Courts and juries are fallible and may err, and the best advice and labor of counsel in the law may be in vain; and habits of life unknown, and hereditary diseases, and neglect of directions, and carelessness of nurses, may defeat the labors of the most skilful surgeon. Both the lawyer and surgeon, when they undertake professional business, agree to be responsible for the want of ordinary care—such care as ordinarily prudent men bestow upon their business. This is the responsibility which the law imposes upon them. But it is said the professional man is also bound to use his best judgment, and that judgment should be an enlightened one. This is true; but in cases where there is great difference of opinion among the most skilful and experienced as to surgery, where the most eminent men in the profession differ as to the methods of performing operations, the surgeon who possesses the necessary qualifications will not be held responsible for errors of judgment. He will be chargeable with error only when such error arises from want of reasonable, ordinary skill and diligence, especially if the general character of the operation and treatment has been honest and intelligent.

Making an application of these general principles:—

1st. Was this a proper operation under the circumstances of the case?

2d. Was it proper without the bandage or compression?\*

\* Dr. March, Dr. Markoe and Dr. French, the three surgeons who have operated for the removal of loose cartilages, all unite in saying that the operation is warranted without resort to the bandage.

3d. Was the valvular method a proper one?

4th. Was the place where the cartilage was taken out a proper one?

5th. Was the after-treatment proper?

To all these questions some of the most eminent surgeons in the State, and I may say among the most eminent in the United States, have given you an affirmative answer. Others, on the part of the plaintiff, who may be equally intelligent, but who have not had equal experience, answer in the negative. Now in such a case, where there is such difference of opinion, and certainly with the experienced men in the defendant's favor, they should not be held liable for an error of judgment, even if you should be of the opinion that they did err.

The operation being thus, for the purposes of this suit, warrantable, and the method, place and treatment proper, was the operation performed, and the after-treatment continued, with reasonable skill and care—such skill and care as would be required at the hands of prudent, competent surgeons.

Now, the contract of a surgeon is not to warrant a cure, except such contract be expressly made. He contracts to exercise his best skill, care and attention. In this particular operation, it appears by the evidence of that eminent surgeon, Dr. March, that he had been uniformly successful. But taking the results of operations by other surgeons, so far as reported, one fourth are *not* successful. It would not do, therefore, to hold up the responsibility of every surgeon in the land equal with that of one of the most eminent.

As to the manner in which the operation was performed, you have the evidence of the defendants, together with that of Mr. Birchfield. If the delay in the operation was caused by the plaintiff, and therefore the time was protracted, the plaintiff cannot recover for any injury caused by such acts of his own.

As to the care and attention after the operation, as I understand, no complaint was made; but, on the contrary, the care and attention were constant, and such as might be expected of a kind and careful surgeon.

I have already observed that, from the evidence, it appears that one fourth of such operations are not successful. The want of success is not necessarily want of skill.

Three fourths of the cases are successful; and if the plaintiff had been among the successful number, if his limb had been entirely restored, he might, like the lame man healed by the Apostle, have "ran and leaped with joy." That it was not successful, is undoubtedly a great misfortune to him. Whether it was the fault of the defendants, is for you to say by your verdict.

You must take this case, and determine it according to the evidence under your oaths.

In the case of Dr. Smith, it is claimed that he had nothing to do with the operation; that he was merely a looker-on, invited by Dr. Squire, as a simple act of courtesy; and that in point of fact he was not present until the operation was nearly completed, and when the chloroform was sent for. If you believe the evidence of the defendants on this point, of course you should render a verdict in his favor.

Then, if you find that this operation was not performed by Dr. Squire and Dr. Wey with ordinary skill, care and diligence, you should find a verdict for the plaintiff.

On the other hand, if you find that they did perform the operation with ordinary skill and care, and such as would be required of surgeons holding a responsible position in their profession, then your verdict should be in favor of the defendants.

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ISOLATION OF PERSONS INFECTED WITH SMALLPOX.—At the regular monthly meeting of the Suffolk District Medical Society, held on Saturday evening, Feb. 23d, the subject of legislative action in regard to smallpox and vaccination, was introduced by Dr. JOHN WARE. After stating in general terms the progress that had been made by the Sanitary Association of Boston, in their investigations of the late epidemic of smallpox in this city, he said that the committee of that Association had recommended that some measures be taken to prevent



free intercourse between smallpox patients and the community at large, and to compel a more complete vaccination.

On motion, a committee of three, consisting of Drs. LYMAN, BETHUNE and HODGES, was appointed to confer with Dr. Ware, and to draft resolutions expressing the opinion of the Society on these subjects.

After an interesting discussion, in which the necessity of isolation of those sick with smallpox, until complete convalescence had taken place, and the early vaccination of children and unvaccinated strangers and immigrants, was clearly shown—the following resolutions were adopted with hardly a dissenting voice:—

*Resolved*, That in the opinion of the Suffolk District Medical Society, the history of the late epidemic of smallpox in Boston, and also the history of the disease for the last fifty years, show satisfactorily that the means for its prevention, as now in force, are insufficient for the purpose.

*Resolved*, That the present measures for enforcing the general practice of vaccination and re-vaccination in the city, and more especially in the interior of the State, do not seem to have been fully adequate for the purpose.

*Resolved*, That the repeal of the provisions in the Statutes by which patients with smallpox and varioloid were restricted from communication with others, has tended to increase the extension of the disease; and that the Society are of opinion that isolation of persons infected with smallpox would, under humane and wise provisions, promote public health and diminish mortality.

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MASSACHUSETTS MEDICAL COLLEGE.—The Annual Commencement for the conferring of medical degrees will take place at the College on Wednesday, March 6th. The exercises will commence at 11 o'clock, A.M., with a prayer by Professor Peabody, after which graduates will read selections from their dissertations. The degrees will then be conferred by the President, and the whole will conclude with an address by Prof. George C. Shattuck.

The Corporation and Board of Overseers of the University will be present on the occasion, and the Fellows of the Massachusetts Medical Society, all medical students, and all persons who may be interested in medical science, are hereby respectfully invited to be present.

D. HUMPHREYS STORER, M.D.,

Dean of the Medical Faculty.

Wednesday, Feb. 27, 1861.

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PREVAILING DISEASES IN DAVENPORT, IOWA.—During the month of January, a genus *morborum inflammatorius* was prevalent, mostly manifesting itself in the respiratory organs—as lobular pneumonia in the adults, laryngitis and bronchitis in children. Strikingly was this fact to be seen among infants who were in the habit of sleeping with adults in the same beds, in rooms heated part of the night, while during the rest of the night the thermometer was near zero. Such great changes were rendered more injurious by the bad habit that children in such a situation generally have, viz., creeping under the bed covering. In consequence thereof, children with solid fibre were attacked with inflammation of the respiratory organs; those with relaxed fibre, with *croup diphtheritic*. In adults the affections yielded kindly to digitalis, antimony and nitrum. In children, hot baths, emetics and continued use of cuprum in such inflammations, with and without false membranes, answered only partially in aiding nature to subdue the inflammation and in freeing the air-passages, as the autopsy and the preparations on hand clearly demonstrate to the contrary. Nor was the generous, supporting treatment in the diphtheritic cases always successful, and I am inclined to believe, from the autopsies and preparations on hand, that tracheotomy might have been of benefit if instituted at a *very early* period, and not later, as the emphysema in the lungs indicated. One of the children, aged 4 years, was attacked twice with the same diphtheritic croup in the course of six weeks. The second attack was complicated with paralysis of the left arm and of the lower extremities, and an irregular cutaneous eruption simulating petechiæ. Wine, animal broth made after Liebig's method, with muriatic acid, and warm baths, with a solution of iron, supported by internal use of the tincture of perchloride of iron, and the washing of accessible parts only of the mouth and the fauces, with a solution of tincture of myrrhæ and the chloride of potash, with twenty-four days' good and rational motherly nursing, helped the

little sufferer so far that she sits up now. In all of the cases of diphtheritic croup that came under my observation, I could notice on the gingivæ, mostly near the teeth, a pearlsh gray layer, even before any alarming symptoms in the respiratory organs were apparent. The above-mentioned preparations are at the disposal of any medical gentleman to use, if he is willing to pay the expenses of sending for and returning them, or in exchange for fetuses or diseased placenta. I have seen isolated cases of *varicoid*, and have heard of isolated cases of scarlatina in the community during this month. The month was to our population, what haying time is to the farming community in regard to accidents, from the nefarious amusements of the youths of coasting or sliding down the hillsides on hand sleds. To my knowledge, in this community of 10,000 inhabitants, during this month, one man was killed, one man had his leg and one boy his arm fractured, and several were left minus a number of teeth.

Davenport, Scott Co., Iowa, Feb. 4, 1861.

IGNATIUS LANGER, M.D.

**AMERICAN MEDICAL ASSOCIATION.**—The Fourteenth Annual Meeting of the American Medical Association will be held in Metropolitan Hall, city of Chicago, commencing on the *first* Tuesday in June next.

Every regularly organized Medical Society is entitled to send one delegate for every ten of its members; and each Medical College is entitled to two delegates. It is desired that the names of delegates should be forwarded to the undersigned as soon after their appointment as practicable.

Chicago, Feb. 1st, 1861.

H. A. JOHNSON,  
Assist. Secretary.

Editors of Medical Journals please copy.

### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, FEBRUARY 23d, 1861.

#### DEATHS.

	Males.	Females	Total.
Deaths during the week, . . . . .	40	31	71
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	38.7	37.1	75.8
Average corrected to increased population, . . . . .	..	..	84.6
Deaths of persons above 90, . . . . .	..	1	1

#### Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Smallpox.	Dysentery.	Typhoid Fever.
14	0	1	2	0	0	0	1

#### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	29.760	Highest point of Thermometer, . . . . .	43°
Highest point of Barometer, . . . . .	30.100	Lowest point of Thermometer, . . . . .	15°
Lowest point of Barometer, . . . . .	29.324	General direction of Wind, . . . . .	W. & SW.
Mean Temperature, . . . . .	32° 9	Am't of Rain (in inches) . . . . .	0.760

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 585.

		BAROMETER.				THERMOMETER.			SNOW & RAIN		Mean Amount of Cloud. 0 to 10.
		7 A.M.	2 P.M.	9 P.M.		7 AM.	2 PM.	9 PM.	Mean	Meas- sure.	
Monday, Feb. 11,		28.88	29.01	29.03	Mean	35	27	29	Height,	Time	
Tuesday, " 12,		29.30	29.30	29.39	Height,	23	36	34	Mean	13 hours,	
Wednesday, " 13,		29.40	29.33	29.31	Lowest	35	35	33	20 m.	1.72	
Thursday, " 14,		28.94	28.81	28.84	Point,	31	34	33			8.66
Friday, " 15,		28.86	28.84	29.04	Point,	27	29	25			
Saturday, " 16,		29.06	29.05	29.11	29.40.	21	24	17			
Sunday, " 17,		29.18	29.25	29.30	28.61.	12	21	14			

**BOOKS RECEIVED.**—Course of Lectures on the Physiology and Pathology of the Central Nervous System. By C. E. Brown-Séquard, M.D., F.R.S. Philadelphia: J. B. Lippincott & Co. Price \$2.25.—Lectures on the Diagnosis and Treatment of the Principal forms of Paralysis of the Lower Extremities. By C. E. Brown-Séquard, M.D., F.R.S. Philadelphia: J. B. Lippincott & Co. Price \$1.50.

**DEATHS IN BOSTON** for the weeking Saturday noon, February 23d, 71. Males, 40—Females, 31.—Accident, 1—anæmia, 1—anæurism of the aorta, 1—apoplexy, 3—disease of the bowels, 1—congestion of the brain, 1—disease of the brain, 1—bronchitis, 3—cancer, 4—consumption, 14—convulsions, 4—cystitis, 2—tebility, 2—diphtheria, 1—dropsy of the brain, 1—dyspepsia, 1—epilepsy, 1—erysipelas, 1—scarlet fever, 1—typhoid fever, 1—hernia, 1—hip disease, 1—intemperance, 1—infantile disease, 1—disease of the lungs, 3—inflammation of the lungs, 2—marasmus, 1—necrosis, 1—old age, 3—paralysis, 2—peritonitis, 2—premature birth, 3—tabes mesenterica, 1—unknown, 6.

Under 5 years of age, 27—between 5 and 20 years, 2—between 20 and 40 years, 18—between 40 and 60 years, 11—above 60 years, 13. Born in the United States, 49—Ireland, 18—other places, 4.



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TRIAL OF RICHARD S. RICHARDSON AND SARAH ANN HEALY  
FOR MURDER BY POISONING.

[Communicated for the Boston Medical and Surgical Journal.]

State vs. Richard S. Richardson and Sarah Ann Healey. Supreme Judicial Court of New Hampshire, Rockingham ss., October Term, 1860. Trial from Nov. 12th to Nov. 17th, before BELL, Chief Justice, and DOE, Justice.

*Counsel for the State.*—Charles H. Bell, of Exeter, Solicitor, and Samuel M. Wilcox, of Exeter.

*Counsel for the Prisoners.*—Hon. Daniel M. Christie, Dover, N. H.; Hon. W. H. Y. Hackett, Portsmouth, N. H.; Hon. Wm. C. Clarke, Manchester, N. H.; B. P. Cilley, Manchester, N. H.; Wm. B. Small, Newmarket, N. H.

Indictment for murder, by poisoning, with strychnia, of Stephen Healey, March 6th, 1860, at Auburn, N. H.

It appeared in evidence that Healey, the deceased, was about 45 years of age, and a man who was in the habit of using intoxicating liquors freely. There was evidence tending to show that during the summer and fall preceding his death he had been several times very drunk, on one occasion for several days; but during the winter following, up to the time of his death, he had worked very steadily, chopping wood and timber, and was but two or three times seen under the influence of liquor, although he used it daily. On the morning of Monday, March 5th, he went to a neighbor's to borrow a flail for the purpose of doing some threshing for himself, and at the same time purchased a half pint of brandy; but he was then sober, and in his usual health. So far as could be ascertained, no one except the respondents saw him alive after this time.

It was proved that on the morning of March 5th, the prisoner, Richardson, purchased at a druggist's in Manchester twenty grains of strychnia, and it was shown, that, after suspicions of foul play had been excited in the neighborhood, he attempted to persuade a niece of his to swear that he purchased the strychnia for her, and that she at first did so state, but afterwards retracted. A letter of R.'s was also proved, in which he urged another person to swear that he let Healey, the deceased, have strychnia, saying

that that was all that would save him. There were other things tending to throw suspicion upon the prisoners, and also tending to show an undue intimacy between them.

Nothing is known definitely of what transpired during the night of the fifth. After his death, the prisoner, Mrs. H., gave substantially the following account:—that Healey ate a hearty supper, and not feeling very well retired shortly after; that he was sick during the night, had spasms and twitchings; that it took them both to hold him; that he called for liquor, and they gave it to him so long as it lasted; that he had his reason when out of the spasms; that he told her, if he should die he wanted Richardson to have his watch, and wished to be buried on his lot in the cemetery; that he did not wish her to send for a physician, but said that if he was not better by morning he should have to send for one; that she was not alarmed, as she had seen him so before. No physician was sent for in the morning, and no one was called in until between ten and eleven o'clock in the forenoon, when he was dead.

Upon a *post-mortem* examination being suggested to her, she objected to it, and said that she and R. were perfectly satisfied as to the cause of his death—that he died of the *delirium tremens*. In a letter to his sister on the day of his death, she says he died of *palsy*. To another person, she said he had been troubled with heart disease, and she had told him he was liable to be taken away at any time. The two prisoners were the only persons in the house during the night, and until after he was dead.

Between ten and eleven o'clock, Richardson went out and asked Mr. Bragg to come up and help lay out Healey, and upon Bragg's inquiring in surprise if he was dead, R. said, no, but he will be by the time we get there. A few minutes after, he said to Mrs. Martin, that he wanted to have her go over, for Healey was very sick and they did not expect he would live. Bragg testified that he and R. laid out the body; that he saw no unusual stiffness in it; that the body was very wet with sweat, so much so that they were obliged to tear his shirt down to get it off; that there was no difficulty in removing it from his arms; that there was no difficulty in moving his limbs, and the body appeared natural, so far as he saw anything.

Mrs. Martin was the first one there; the body was still warm; laid as straight in the bed as any corpse she ever saw; his face appeared natural; feet natural; no difficulty in putting pillows under his head; saw no more stiffness than she had usually seen in such cases.

There was also no difficulty found in putting on the robe, and collar and cravat. Two witnesses said that his chest and bowels appeared to be swollen hard the second day after his death. Healey was buried on Thursday forenoon, March 8th.

March 15th, the body was disinterred, and a *post-mortem* examina-



tion made by Drs. Hubbard and Davis, of Manchester, and the stomach and contents and other parts removed and sent to Dr. A. A. Hayes, of Boston, for chemical analysis. The medical and chemical testimony is reported in full.

The jury returned a verdict of murder in the second degree against Richardson, and not guilty as to Mrs. H.

Out of a panel of eighty-five jurors, forty-six answered under oath that they had such conscientious scruples in regard to the taking of human life, that they could not agree to a verdict the result of which would be the taking of life, even upon the clearest evidence.

#### GOVERNMENT TESTIMONY.

*Geo. H. Hubbard.*—I reside in Manchester; am a physician and surgeon, in practice 17 years. March 15th, 1860, I made a *post-mortem* examination, with Dr. Davis, of a body represented to me to be that of Stephen Healey, in the hearse-house at the cemetery at Manchester. The body was taken out of the coffin by myself and Dr. Davis, with some assistance, and laid upon a board upon the bier. The skin and a great part of the surface of the body had a bright red appearance. The body was quite stiff; the tissues had a firm feel, but not so much so as I have seen in bodies the second or third day after death. I mean by that, there was less stiffness than I have usually found the second or third day after death. The countenance was red and quite life-like. We opened the chest, and found the lungs healthy, if we except an old strong adhesion upon the left side; the heart appeared healthy, the right side, I think, distended with fluid blood. The abdomen was opened, and the contents appeared, upon inspection, to be perfectly healthy. The stomach was carefully removed, with all its contents, and put into a clean jar. The upper portion of the intestines was also carefully removed, and, with its contents, put into another jar. The liver was removed and wrapped in a clean paper—weight, three pounds. The bladder was opened, and a portion of urine also put in a clean bottle. The throat was examined, to discover if any obstruction existed in the passages, and none was found. Upon cutting through the scalp, it bled freely, the blood being of a dark fluid character. The skull was removed, and the vessels of the brain and membranes found distended with dark fluid blood. No other unnatural appearance was found about the brain.

The several portions removed were set back in the rear part of the hearse-house, out of one's way, and at the conclusion of the examination I carried them to my office, and they were locked up in a closet adjoining. The next morning, before sealing the bottles, the stomach was opened and the lining membrane examined. There was a redness about the cardiac orifice. Opened the stomach in my office. Its contents were of a greyish color, about four fluid ounces. Discovered no undigested food. No odor. Did not test it for acids or alkalies. There was no bile nor blood.

No recollection that the mucous membrane was softened. Carefully stopped and sealed the bottles, and packed them in a box which I formerly used to carry medicines in, and delivered them to E. A. Heath.

The adhesion was an old adhesion, a mere mark of a previous inflammation, which might have existed years before.

I did not discover any natural cause of death about the body.

I have no personal knowledge of the effect of strychnia. I have come to the conclusion, from all sources of information, that there are no essential *post-mortem* appearances which are always found to exist. Distension of the vessels of the brain and scalp, with dark fluid blood, is found in the greater number of cases. The discoloration about the neck furnishes no indication as to the cause of death. Such appearances are common.

I made some notes within a day or two of the examination. They are as follows:

"*Post-mortem* examination of the body of Stephen Healey, March 15th, A.D. 1860. Countenance and much of the external surface bright-red. Flesh had a firm feel, but the *rigor mortis* not so decided as in most dead bodies; yet there was no flaccidity or tendency to decomposition. Less smell than usual. Body well developed and very muscular, but with no superfluous fat. In thorax, no appearance of disease, if we except an old strong adhesion of pleura of left side. Heart natural. Abdominal viscera appeared perfectly healthy. Liver weighed three pounds. Larynx and trachea free from obstruction. On removing skull, all the vessels about the brain were turgid with blood. This congestion was found to pervade the whole brain and all its membranes. No effusion about the brain."

Cannot state positively that I found most blood in the right ventricle; that is my present recollection, but I may be mistaken.

Have never made many *post-mortem* examinations—perhaps four or five in the last five years. Do not remember to have examined any persons who died of drunkenness or in a drunken fit. I think we pursued the examination as far as we considered it profitable. Think we removed brain and examined base. Did not open gall-bladder; felt it, to see if there were any concretions in it. Did not examine pulmonary artery or rectum. Possibly might have found causes of natural death in these organs. Did not notice any peculiarity about hands; they were tied together on his breast. I think the fingers were not out straight. Cut into brain, and discovered no unusual softening. The intestines were carefully examined before any part was removed.

Several cases are reported in which less than a grain of strychnia caused death. Think a grain would usually cause death. It causes death in various times, from a few minutes to a few hours. After taking two grains, should expect death to ensue in two hours. It depends upon the form in which it is taken; the solu-



tion is quicker. Its taste is bitter—could not say bitterest of anything; the books say, intensely bitter. Pure strychnia is not much soluble in water. Have no recollection of seeing its effects upon animal life so as to produce death.

*Ebenezer H. Davis.*—Reside in Manchester. Physician and surgeon. In practice fourteen years. Assisted in the *post-mortem* examination of Stephen Healey, with Dr. Hubbard.

The surface of the body presented an unusual freshness, and firmness of muscles, with unusual redness of skin. We first opened the chest. The lungs were healthy, except an old adhesion of left side. Then examined abdominal viscera. On exposing viscera, there was no external indication of disease. Then removed stomach and contents, and placed them in a bottle. Next removed a portion of smaller intestine, and put in another bottle. Examined liver, kidneys and bladder, which were found healthy. Found nothing unusual about the heart; there was a fulness of coagulated and fluid blood in the left ventricle. Cut open the heart, and examined walls and valves. Discovered no indications of disease. Then examined wind-pipe and passage into the stomach and back part of the mouth, and discovered no obstruction. Then examined the brain. On separating the scalp, blood oozed freely from it. Then exposed the brain, the bloodvessels of which, and of its membranes, presented a remarkably distended appearance. We laid open the brain, made quite a number of incisions into it, and examined it internally. Wherever we found bloodvessels, they were unusually distended. No effusion into cavities of brain, nor any indications of inflammation. Found no indications of any natural cause of death.

The next morning, at Dr. Hubbard's office, we opened the stomach and examined the mucous membrane; there was a dark-red discoloration of its upper portion. The contents of the stomach were fluid; no undigested food.

Have no personal acquaintance with the operation of strychnia. Should expect to find distension of vessels of brain in case of poison by strychnia. My impression is, that there is no one symptom in any organ which is certain to follow death from strychnia. The discoloration about the ear and neck does not afford any indication of the means of death; the appearance is common in case of natural death. The smallest quantity of strychnia I have seen reported as producing death, is one quarter of a grain. One grain would be pretty sure. Should expect two grains to kill in two to three hours. It would depend upon the mode in which it was taken. If two grains were given in spirit, and stomach nearly empty, life would not continue more than two hours.

Do not remember any unusual softening of brain. Have made other examinations. Think we made examination of base of brain. Bloodvessels, wherever we found them, were distended. Did not examine spine or rectum. Examined gall-bladder and kidneys;

nothing peculiar about them. Examined heart carefully myself. Examined lungs. Did not examine pulmonary artery particularly. Might, perhaps, have found evidence of disease there.

If I did not know anything of the symptoms, I should lay open the chest and examine heart and lungs in case of sudden death. Sudden death does not often occur from spinal complaint. I do not know that redness of stomach would always indicate inflammation before death. Made no examination of intestinal canal, except by manipulation. Perhaps might find a cause of death there. Think we examined spleen and pancreas.

Never have seen effect of strychnia upon animal life. Fluidity of blood may be produced by other causes than strychnia, sometimes in case of sudden death. Strychnia is said to produce death by asphyxia. Think I have seen cases reported, where the rigidity was wanting. Think there have been cases where neither spine nor hands were curved.

I think there are no indications about the heart which would necessarily denote poison by strychnia.

Should ordinarily expect to find some indication of asphyxia in the heart; can't say *always*. Am not prepared to say that the same indications always follow asphyxia.

*Elisha A. Heath.*—Received box from Dr. Hubbard, and delivered it to Dr. Hayes in same condition as I received it. Did this March 16, 1860.

[To be continued.]

#### CASE OF DR. HORACE W. ADAMS.

[Read before the Boston Society for Medical Improvement, Feb. 25th, 1861, by FRANCIS MINOT, M.D., and communicated for the Boston Medical and Surgical Journal.]

THE death of Dr. HORACE W. ADAMS, following closely upon the equally sudden death of his patient, Mr. F. L. Gardner, both from disease of the throat, renders his case one of peculiar interest.

The following circumstances under which his disease arose, were obtained partly from himself and partly from others.

On Tuesday, Feb. 5th, he left Boston, in company with three other gentlemen, to pass a few days at Cotuit Port, a small village on the South Shore. He was suffering at the time from a heavy cold, and thought the change of air would be of benefit to him. The next day, one of the party, Mr. F. L. Gardner, 19 years old, a student in Harvard College, complained of a sore throat. His disease was considered and treated by Dr. Adams as one of acute tonsillitis, and appears to have been of moderate severity, as the patient was not confined to his bed. He had difficulty and pain in swallowing, swollen tonsils, and a whitish exudation on the fauces. On Sunday, Feb. 10th, Mr. Gardner was apparently better, and walked out, a short time, after breakfast. On returning to the house he expressed a wish to lie down, and Dr. Adams



accompanied him to his chamber. He had hardly thrown himself upon the bed when he started up in a paroxysm of suffocation, and fell back, dead. Dr. Adams immediately laid him on the floor, and tried to resuscitate him by clearing the throat with his fingers, and by endeavoring to inflate the lungs by blowing into his mouth. A large quantity of matter was removed from the patient's throat and mouth, and it was conjectured that an abscess in the tonsil had burst, and caused suffocation by the pus being inhaled. I may here remark, that this opinion was concurred in by Dr. J. Harpur, of Sandwich, who arrived after the patient's death. During their stay at Cotuit, the party experienced much vicissitude of weather, the night between the 7th and 8th having been excessively cold, so that they all suffered, with the exception of Mr. Gardner, who was so well protected that he was not aware of its having been particularly cold.

The party returned to Boston on Monday, Feb. 11th, and the next evening Dr. Adams complained of some soreness of the throat, and passed an uncomfortable night, but on Wednesday, Feb. 13th, he was out, and attended the funeral of young Gardner. On his return home, however, he felt so unwell that he sent for me, desiring me to bring some nitrate of silver and a sponge-probang. I saw him at about 2½ P. M. He was down stairs, walking about the room, rather excited, and the first thing he said was, "I have got young Gardner's disease." The voice was hoarse, the pulse at 108. The right side of the neck was a good deal swollen. Both tonsils were swollen, especially the right, and covered with a greyish-yellow, soft substance. The tongue was moist, and covered with a rather thick, dirty-white coat. The breath was rather offensive. There was no great difficulty in swallowing, and none in breathing. He had already taken some rhubarb, which had operated. He expressed a desire to go out, thinking that a walk would do him good. I persuaded him to go to his chamber, and in view of the circumstances of the case, proposed to ask Dr. Bowditch to see him with me, to which he readily assented. In the mean time, I directed him to take a grain of quinine every hour; strong soup every three hours, and brandy and water occasionally; and to gargle the throat with a solution of chlorate of potash, of the strength of half an ounce to a pint of water.

At 5, P. M., Dr. Bowditch saw him with me. He touched the fauces and epiglottis lightly with a sponge-probang dipped in a solution of lunar caustic (thirty grains to the ounce), which was repeated in the evening, by his advice, with a solution of double the strength. He also advised a gargle of salt and vinegar, which, however, the patient found harsh, and did not continue. The treatment before adopted, in other respects, was continued. Dr. Adams was not at all prostrated, was cheerful, and said his throat was better.

Thursday, Feb. 14th.—Patient in bed. Dr. Bowditch saw him

with me twice, and continued to do so daily, except on Saturday, 16th, when he saw him but once. To-day, the greyish appearance in the throat appeared extending, except towards the left side, and was invading the soft palate. The external swelling was increased; it was hard and lobulated, and but moderately tender. There was increased difficulty in swallowing. The uvula was large and œdematous, apparently filling up the narrow chink left between the tonsils. The pulse in the morning was at 96; towards evening it fell to 84. The voice generally whispering, but sometimes very hoarse. There was no difficulty of breathing; no nervousness; the patient was cheerful; the aspect and color of the face were good. He was constantly employed in hawking and expectorating mucus, with a little serum, sometimes bloody. This symptom continued to the last—the favorite position of the patient being with his head over a basin at the side of his bed. During the day, he took a considerable quantity of beef-juice, milk and brandy, with quinine, but the pain in swallowing was evidently increased, and we were apprehensive that he would soon be unable to take nourishment by the mouth. Fearing that the greatly-enlarged uvula might accidentally obstruct the air-passage, by becoming engaged between the tonsils, it was amputated. It resembled a piece of umbilical cord, more than anything else.

Friday, Feb. 15th.—Dr. Adams was unable to swallow at all, during the night. He seemed unwilling to sleep, for fear he should be choked by the great amount of purulent mucus which accumulated in his throat. He however said he passed a comfortable night. Before morning he took some beef-juice and quinine in enema, which was not long retained. He afterwards had a free discharge from the bowels, after which he repeated the enema, with excellent effect, several times. He swallowed nothing during the day. The pulse was rather weaker, regular, and at about 84. There was less swelling outside the jaw on the right side. The right tonsil was much swollen, and with the soft palate adjoining, and the remains of the uvula, was covered with a greyish-white exudation. The breath was slightly offensive. The strength was good, and he was able to rise and walk about the room without effort.

Saturday, Feb. 16th.—The night was about the same as before. The patient seemed to dread to sleep, and wished to be aroused should he do so. He dozed frequently, but had no continuous sleep. He succeeded in swallowing about half a pint of milk, mixed with bits of ice, during the night. The pulse in the morning was at 84; towards noon it rose to 96. The voice was fainter. There was at times some difficulty of breathing, but no actual dyspnoea. The patient was more restless than before. The throat looked more obstructed, the exudation extending up on the soft palate. At 4, P. M., he was suddenly seized with symptoms of strangling, and, after much effort, ejected a piece of firm, white membrane, five



inches long, and one inch broad, which was tubular in two places. It was about the sixteenth of an inch thick, and looked like a piece of white kid. After this there was a coarse râle at times in the throat, but he could swallow with much more ease, and took freely champagne wine and beef-tea. At 7, P. M., he complained of great heat, and had the windows opened. The pulse at this time was at 108. He soon became more comfortable, but feeling anxious that he should have a medical man constantly with him, I requested Dr. STEARNS to pass the night in his chamber, provided with instruments to open the trachea, in case symptoms of suffocation should come on. Dr. S. reported that he had a fair night. He raised two more pieces of membrane, smaller than the first, and without difficulty. The respiration was labored at times, and he once rose and sat by the open window, feeling the want of air. He took about half a bottle of champagne, which he relished, and seemed to need. The pulse varied from 116 to 132. He arose once, and went to the water-closet without assistance. Dr. Stearns left him, apparently comfortable, at a quarter past 7, on the morning of Sunday, Feb. 17th. About twenty minutes afterwards, he suddenly had an attack of strangling, got out of bed, put his hands to his mouth, as if to remove some obstruction, and started for the door of an adjoining room. The nurse who was with him lifted him on the bed, and he immediately expired in the arms of his father, who entered the room at the moment. Dr. Stearns was summoned in haste, and opened the trachea, but although artificial respiration was kept up for some time, it was impossible to resuscitate him.

The following account of the *autopsy* was furnished by Dr. ELLIS. The neck was much swollen. The glottis and epiglottis were swollen and oedematous. A false membrane covered the tonsils and posterior part of the fauces, and extended through the glottis and trachea, to the secondary bronchi, where it terminated in a thin edge. It was somewhat ash-colored, and perhaps less firm in the fauces than in the trachea. In the latter part it was quite firm, and about the sixteenth of an inch in thickness. It was perforated at the point of the operation, so that the air must have been admitted. Near the rima glottidis was a small shred, loose at one extremity, which might have caused obstruction, and suddenly terminated the life of the patient. The membrane was separated with ease from the subjacent surface, which was slightly reddened, and perhaps rough, but the change was not very marked. On microscopic examination of the false membrane, nothing unusual was observed. In the apex of the left lung were several groups of firm grey granulations. A few of the same were also seen at the right apex. Heart normal. Abdomen not examined.

## CASES OF DIPHTHERIA.

[Communicated to the Boston Society for Medical Improvement, Jan. 14th, 1861, by W. C. B. FIFIELD, M.D., of Weymouth.]

THIS fatal epidemic appeared in Weymouth, during the autumn months of 1860. It invaded, at that time, the portion of the town known as South Weymouth. In December it appeared in East Weymouth, at the house of one Dempsey, where a boy of 18 speedily died. A number of fatal cases followed this, and some are still seen. On the 10th of January, 1861, it visited Weymouth Landing. On that day I accidentally visited a farm house a mile from the village, situated on very high ground, inhabited by four persons—Mrs. B. aged 70, a man about 35, a young man (Oakes Tasker) 23, his wife, and an infant two or three weeks old. In reply to my salutation, Mrs. B. made answer that she had a bad cold and sore throat, that Tasker was in bed with a dreadful headache, and had been vomiting. Looking into Mrs. B.'s throat, I saw the edges of the soft palate reddened with inflammation, the uvula swollen, the fauces inflamed. On the left tonsil (which was not swollen), were two small patches of dirty-white false membrane. Inspecting the throat of Tasker, the first appearance was a veil of transparent mucus, hanging from the palate to the tongue. Instantly this burst, revealing the uvula, long and œdematous, the fauces and edges of the soft palate of a dark-red, almost purple color, the tonsils swollen, and upon the left, a small patch of dirty, yellowish-white membrane, dipping into the little depression on the tonsil, and giving to that body the appearance of a large dark strawberry. There was no dyspnœa, and no remarkable difficulty in swallowing. Headache severe. Patient seemed much plagued by tenacious mucus, which he continually tried to expectorate. He refused to have nitrate of silver applied to the throat. Had been perfectly well until last night, when headache, shivering and vomiting came on whilst he smoked his pipe at the fire-side. Ordered him to gargle the throat with salt and vinegar every hour, to take two grains of hyd. chlor. every six hours. Mrs. B. was directed to take five grains of iodide of potassium every six hours. Same gargle as prescribed for Tasker. The spots in throat were touched with solid caustic.

Friday, 11th.—Mrs. B. thinks she feels better; number of patches increased by two on right tonsil, which was touched with caustic. Continue medicine. Tasker thinks he also is better. Tonsils more swollen. Consented to have patch touched with caustic. Uvula longer and more œdematous. Continue medicine. At 7, P. M., called to Tasker. He complained that he could not breathe, nevertheless there was no marked dyspnœa. Throat greatly swollen externally, being nearly even with the chin. The form of the swollen tonsils could be recognized on the outside of the throat by the sight. Ordered whiskey and salt to the outside of



the throat. To gargle alternately with chlorate of potass solution (3 ij. ad Oj.).

Saturday, 12th.—Mrs. B. still thinks herself better, but the number of patches is increased. Touched them with caustic. Continue iodide potassa, but gargle with solution of potassa chlor., alternately with salt and vinegar. Tasker was bolstered up in bed; had felt great relief from external application; had slept; bowels had been freely opened; tonsils greatly swollen. Continue gargles and application. Continue hyd. chlor. until 3, P. M. At 7, P. M., five grains iodide potassa, and repeat every six hours. Chicken broth.

Sunday morning, 13th.—Called in haste to Tasker. Arrived at the house at 8, A. M. Found him sitting up in bed. Said he thought he had been more scared than hurt. Had fancied that he was choking. Throat still swollen externally. Tonsils still greatly enlarged, so that a narrow chink, triangular in form (the tongue representing the base), alone remained. With the handle of a spoon, I drew forward the uvula, which was very large and long, reaching far forward upon the tongue. Patient expressed great relief from this proceeding. The false membrane has not much increased since the first day. Ordered to continue remedies. Tasker asked me to come again in the afternoon; I assented. Ten minutes after I left the house, he sprang from his bed, ran into an adjoining room where his wife was in bed, and threw himself upon his knees beside her. He did not speak, but kissed the baby. His brother lifted him back to his bed, but he held a dead man in his arms. I cannot help thinking that the large and long uvula had a great share in this man's death. It was certainly long and large enough to fill up the chink between the tonsils, if not to fall into the glottis. I regret not having cut it off, and in a similar case would advise excising a portion also of the tonsils. This thought I stated to the Society, without ever having heard it suggested by any one. I now find it has been carried into execution by Dr. Bostwick, of Red Rock, Canaan, N. Y., with distinguished success.

Monday, 14th.—My aged patient, Mrs. B., still feels better. Swallows better. Throat has been daily touched with solid caustic, but the number of patches has increased until the throat is speckled with them. Touched them with a mixture of muriatic acid and honey, equal parts, applied with a small camels-hair brush on the end of a pen-staff. Ordered chlor. potassa, five grains, every four hours; continue gargles. Under this treatment, together with broths and other nutriment (the patient had an odd fancy for turnips, which was gratified), she rapidly recovered; the last spot disappearing Jan. 22d, thirteen days from the date of attack. The other members of the family remained exempt, as well as the nurse and others.

Saturday, Jan. 12th, two days after the outbreak of the disease

above related, I was dressing the hand of a boy, 20 years old, who had been wounded three weeks before. After the dressing he said, "Yesterday I was cold and shivery, and to-day my throat is sore." Looking in, I saw the edges of the soft palate inflamed, the uvula long and œdematous, tonsils not swollen, but upon the left were two small patches of false membrane. It did not hurt him to swallow. Ordered the application of whiskey and salt to the neck; six grains chlor. potassa every four hours; gargle of the same (3 ij. ad Oj.), alternately with vinegar and salt, every hour. Touched the spots with solid caustic. Next day, 13th, he had allowed the medicine to freeze; but alarmed at the death of Tasker, he ordered a fresh supply of remedies. Spots increasing, and were touched with solid caustic.

Monday, 14th.—He was better, but spots increased. Touched these with muriatic acid and honey. Two drachms of chlor. potassa were powdered in a wedgewood mortar, and a drachm of muriatic acid added. Eight ounces of water were quickly poured in to check the escape of chlorine. Of this preparation, a table-spoonful was given alternately with the chlor. of potassa. Under this treatment, he was quite well on the 20th; the disease having lasted eight days. This person's appetite never failed. He took ordinary diet with the rest of the family. In this house (a mile distant from the other), were two adults and three children; yet, all were exempt.

The disease is not in the least contagious under ordinary circumstances. I mean, unless some of the membrane be applied to another person's mouth or open wound. So far as concerns the town of Weymouth, the epidemic, after attacking the village of South Weymouth, remained for some months confined to that locality, although the villages of East Weymouth and Weymouth Landing are not more than three miles distant. After invading East Weymouth, more than three weeks passed before it appeared at Weymouth Landing, distant two miles and a half. It visits houses situated on high and low land indiscriminately, afflicts alike rich and poor, youth and old age. The first case occurring in a village seems to be a fatal one. In South Weymouth, it is understood to have attacked some persons recovering from typhoid fever. From what I have seen, and from what I have heard from other physicians, this disease is observed in three different forms, viz. :—

One, in which the constitutional symptoms are light, resembling a common cold. The deposit of false membrane is thin, and in patches; the throat is moderately inflamed. These cases would probably recover even without treatment.

Secondly, cases in which the constitutional symptoms are more marked, with more soreness of the throat. The deposit of false membrane is thick, and in continuous sheets, and progressively grows thicker, quickly re-appearing when removed, and invading



the nostrils. Death takes place in the great majority of cases, probably resulting from slow suffocation, the deoxygenated state of the blood preventing that great suffering which one would expect, but which, I learn, is not observed.

Thirdly, a class of cases marked by severe symptoms—violent headache and vomiting, great swelling of the tonsils, simulating suppurative tonsillitis, great swelling of the cellular tissue of the neck, a livid hue of the soft palate and fauces, enormous lengthening and enlargement of the uvula, small deposit of false membrane, death coming rapidly and when not expected. Death seems to result from a combination of sudden suffocation and syncope.

In regard to treatment, I have said that the first class of cases would probably recover without treatment. Nevertheless, they seem to be assisted by the use of chlor. potassa internally and used as a gargle; touching the patches with muriatic acid and honey, and ordinary diet. The second class, if they are to recover at all, will be most likely to do so under the use of chlor. potassa, muriatic acid locally, salt to the neck externally, wine and beef tea internally. The third class seem to be struck down as by a thunderbolt. It is in this class of cases that I would recommend (in addition to the other measures, with prompt and powerful stimulants and food,) the excision of the uvula and even the tonsils.

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#### DIPHTHERIA IN SOUTH WEYMOUTH.

[Communicated for the Boston Medical and Surgical Journal.]

WE have been permitted to publish the following communication to Dr. Bowditch on Diphtheria as it has appeared in South Weymouth:—

SOUTH WEYMOUTH, NOV. 12, 1860.

PROF. BOWDITCH,—*Dear Sir*,—I have not forgotten my promise to give you, in writing, some of the results of my observations on diphtheria. This disease, as I have informed you, has prevailed very extensively in this locality during the past year, and particularly during the last six months. A notable circumstance concerning this complaint is, that few cases of it have occurred in neighboring towns, or even in other parts of this town—North Weymouth, East Weymouth, and Weymouth Landing being comparatively exempt from it.

I have in my own practice met with some twenty cases of diphtheria since my professional experience commenced in this town—a year ago. There are two other practitioners in this village, and one or two irregular practitioners who have considerable employment here. I think it will be safe to say there have been seventy cases of diphtheria in South Weymouth during the past eight months. Out of this number, I can now enumerate sixteen fatal cases. In several instances two and three children have died from one family.

The greater prevalence of diphtheria in this, over neighboring localities, I attribute in great part to the character of the soil, which is here very wet and springy. The subsoil is of clay, which forms a

basin impervious to water ; consequently the surface of the ground is saturated with moisture. There are also several ponds, marshes, and water-courses in the vicinity.

So far as I have observed, children have mostly been subject to this disease, but not exclusively. There have been some half dozen cases of it in adults, and two fatal cases. Diphtheria first made its appearance here last winter, in connection with scarlatina and measles, but since spring it has occurred independently of these disorders.

I will mention some of the symptoms and appearances of diphtheria, as I have noticed them. The patient generally feels somewhat unwell for a day or two before the affection of the throat is manifest. His appetite fails. Perhaps nausea and vomiting are the first symptoms. Adults complain of chilliness, and aches in their limbs. If a child, he loses his inclination to play, is inclined to be drowsy. There may be restlessness at night, gritting of the teeth, and feverishness. Not unfrequently none of these precursory signs appear, and if any of them occur, they are not thought of at the time, but are recalled to mind by the patient, or the parents of the child, after the more patent symptoms set in. On the second or third day, if not before, there is observed some difficulty in deglutition, and externally may be felt slight enlargement of one or both submaxillary glands, which are tender on pressure. Perhaps the first thing noticed by the parents of the child is the swelling of the areolar tissue of the throat. At this period, examination of the fauces generally reveals swelling of one or both of the tonsils and soft palate, accompanied with unusual redness of the mucous membrane. Small patches of membranous lymph, of a dirty-whitish color, are also visible. I have detected this deposit when it was no larger in extent than a split pea, but usually it is as large as a three-cent piece. I have been first called to attend a patient when the whole fauces and soft palate were completely covered with this exudation. Parts of the pharynx not covered with this false membrane are usually oedematous and fiery red, resembling erysipelas.

From this period the symptoms rapidly increase in severity, if not arrested. At the expiration of a week, the prognosis, whether favorable or otherwise, can be determined. Death usually occurs between the end of the first and second week.

The swelling of the throat in severe cases is very great, so as to interfere with the venous circulation, thus producing a bloated and dusky aspect of the countenance. Breathing becomes laborious, causing the head to be thrown backwards. The skin is moist, often bathed in perspiration. The pulse is rapid, soft and small. Speech becomes lost, or audible only in whisper. The strength rapidly fails. Expectoration, at the end of a week, is quite profuse. Large flakes of fibrine, perfect castings of the air-passages, may be expelled by coughing.

There is an odor characteristic of this throat affection, sometimes so intense as to pervade the whole apartment.

Death usually occurs from exhaustion of the vital forces. Frequently the little patient lies several hours in a half comatose state before life ceases. There is much suffering from dyspnœa in severe cases, when symptoms of croup manifest themselves.

Starting at the pharynx, this disease extends upward into the nasal openings and frontal sinuses, backward into the Eustachian tubes, and



downward into the trachea and bronchi, and, as I have reason to believe, into the alimentary tract.

The treatment which I have pursued has been various, but that which has found most favor with me is the free and frequent exhibition of chlorate of potassa; gargles of the same, or of water acidulated with muriatic acid, or, what is still better, a solution of common salt. The best external application is a saturated solution of common salt. I say this after trying various rubefacients and cataplasms. Cold water is employed by some, but I have never used it. If the disease is not arrested by these applications, I make use of a strong solution of nitrate of silver (3i. to ʒi.). When there is much prostration, stimulants, tonics, and plenty of beef-tea, or other nourishment.

I will cite one case. On the evening of Tuesday (6th inst.), I was called to a young woman of (I should judge) 25 years, suffering from this complaint in its early stages. She returned to her home the day before, having been staying for a week with a woman sick with diphtheria. She slept with the woman one night. About two days before I saw her, she had felt (as she expressed it) a stiffness about her jaws and throat. She was, at the time of my visit, sitting up, near the stove, complaining of feeling cold. There was considerable salivation. Face was flushed. Pulse full, and slightly accelerated. Skin warm and moist. No external swelling apparent, but to the touch, slight enlargement of the left submaxillary gland, with tenderness. On examination of fauces, I found decided swelling of the tonsils and uvula, and bright redness of the same. On the left tonsil was a yellowish spot, about one eighth of an inch in diameter. I directed that two teaspoonfuls of a sat. solution of chlorate of potash should be taken as often as every fifteen minutes while patient was awake; that she should gargle with a solution of salt, and apply the same externally. The next day, I learned that the patient had a restless night, and was feverish. The next day, she was somewhat better, and has improved every day since, as I have been told by the mother to-day. I made but four visits. This is one of my best cases. Treatment was commenced early.

Yours truly, C. C. TOWER.

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### Bibliographical Notices.

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*A Practical Treatise on the Etiology, Pathology and Treatment of Congenital Malformations of the Rectum and Anus.* By WILLIAM BODENHAMER, M.D. Illustrated by 16 Plates, and exemplified by 287 Cases. New York: Samuel S. & William Wood, 389 Broadway. Pp. 368. 1860.

THE work before us is one which cannot fail to interest all diligent inquirers in the ranks of the medical profession, at the same time that it will add much to the reputation of one of its laborious members. As a monograph it may be taken almost as a model, while the subject is one upon which the profession were little enlightened, its literature being principally scattered through the published transactions of various medical societies, or appearing in isolated cases reported in various medical journals. Dr. B. has collected from every source the

material for his treatise, and the exhaustive nature of his researches may be inferred from the fact that, though very concisely written, the subject extends over 350 octavo pages. The bibliography alone comprises more than twenty. It is a pleasant thing to see in the preface, among the acknowledgments for the sources of information, an allusion made to the published records of the Boston Society for Medical Improvement, and particularly to the valuable paper of Dr. Gay. We should have been glad to see, in addition, an appreciation of the labors of Dr. J. B. S. Jackson, whose cases and remarks form so large a part of what has been observed in that Society upon this subject; this is not the first time in the history of science that the most diligent workmen have been passed by unnoticed. One remark of Dr. B.'s, which we fully endorse, is in allusion to the want of catholicity in medical writers of different nations. A French author is apt to ignore everything out of France. The reader of an English treatise might well infer that nothing of importance on the subject had been known out of England; and so of the German schools.

In the first chapter, the etiology of these malformations is fully discussed, involving those obscure questions in pathology, of arrest in development, maternal imagination, abnormal distribution of arteries and nerves, &c. We entirely agree with the conclusion arrived at after a full statement of the opinions of Meckel, Geoffrey St. Hilaire, M. Serres, Beclard and others, in that "these distinguished authors entirely fail to give the primary cause of these" (and most other?) "malformations. The truth is, all we *know* with *certainly* is, that we *know* nothing *certain* on the subject, and it yet remains a problem for future organologists to solve." Alluding to the supposed influence of sex, Dr. B. states that, though it is impossible to account for the fact, it is nevertheless true, that these species of malformation are more common in the male than in the female. Whereas the reverse is true with regard to the irregularities in the development of the organs of generation, though the two are anatomically intimately connected, being, in most cases, supplied by branches of the same arteries and nerves.

In his classification of malformations, Dr. B. has chosen a different basis from that adopted by Dr. Gay, in his paper on this subject, and one which, though not pretending to scientific accuracy, is still, in our judgment, the best of the two. The author makes nine species of malformation, each of which is separately described, with the prognosis and treatment fully discussed and profusely illustrated by reported cases. It is well enough to add, that all the cases cited amount to two hundred and eighty-seven, with the authority for each case.

Our limits do not allow us to notice each of these divisions. We cannot leave the subject without endorsing the opinion of the author on the propriety of an operation in those cases where there is a possibility of saving the life of the patient by it. The following remarks of a celebrated surgeon, in the records of the Boston Society for Medical Improvement, are commented upon with some severity:—"Judging from results, I do not consider the operation for imperforate rectum or even imperforate anus a desirable one. I believe that in the present state of the art, it is better that a child born with either of these imperfections, *should die* without this operation; although it must occasionally be performed in deference to established opinion."



The question is pertinently asked by Dr. B., if these opinions should be strictly and universally adopted when would "the present state of the art" arrive at that perfection which would "justify the operation?" We might add that the question whether a human being ought to be left to die, because he may be born with physical or moral malformations, is happily no part of our professional business; if life can be saved or prolonged, or death made more easy, it is our province and duty to interfere. Besides, we confess we cannot see the force of the argument that we should ever operate in deference to established opinion, when it would be wrong to do it in deference to the patient. The results of the operation in the cases cited by Dr. Bodenhamer, are in about the same proportion as those given by Dr. Gay, viz., 25 successful operations out of 77 cases.

In conclusion, we would merely say that the volume which Dr. B. has given to the profession, is most creditable to himself and to the profession in this country; and must be considered by far the most valuable, if not the only text-book on this subject.

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## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

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BOSTON: THURSDAY, MARCH 7, 1861.

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**SULPHURIC ETHER AS AN ANÆSTHETIC.**—At a recent meeting of the Boston Society for Medical Improvement, a discussion arose as to the immunity from death attending the inhalation of sulphuric ether, based upon several reported fatal cases following its use. It will be seen by the circular which we publish this week, that a Committee was subsequently appointed to investigate the subject and report at a future meeting. The Committee is composed of gentlemen admirably qualified for the task imposed upon them, and the result of their labors cannot fail to throw much light upon a question which has not been hitherto wholly decided. A case not without interest as bearing on this point, was sent us a day or two since by Prof. W. H. Mussey, of Cincinnati, an abstract of which will be found below; from this it appears that while a majority of the physicians present regarded death due to other causes, there were those who took the opposite ground. In this connection, we may mention that an instructive paper on the physiological action of ether and chloroform, and their mode of operation, in the production of anæsthesia, was read by Dr. C. T. Jackson before the Society for Medical Improvement, on the evening above referred to, which we shall publish in a future number.

We would particularly request medical and other journals throughout the country to copy the circular of the Committee, that they in this way may more readily gain access to the facts upon which their conclusions must necessarily be based.

BOSTON, MASSACHUSETTS, U. S.

The question of the entire immunity from danger which is claimed for anæsthesia produced by ether, being still under discussion, the Boston Society for Medical Improvement has appointed the undersigned a Committee "to investigate the alleged deaths from the inhalation of sulphuric ether, and to report thereon."

They would therefore request the medical profession, or any person into whose

hands this may fall, to communicate to either of them such cases, coming within their own observation, as shall serve to this end; giving the place, time and circumstances of their occurrence, with the mode of inhalation adopted, and, especially, information in regard to the following points:—

1st—*The kind of ether used, whether pure sulphuric ether, chloric ether, or ether combined with chloroform.*

2d—*The period after inhalation at which death occurred;—*

also any other facts which may enable them to form an opinion on the subject of their investigations.

RICHARD M. HODGES, M.D.

GEORGE HAYWARD, M.D.

SOLOMON D. TOWNSEND, M.D.

CHARLES T. JACKSON, M.D.

J. BAXTER UPHAM, M.D.

*February, 1861.*

The case of death following the inhalation of sulphuric ether, by Prof. Mussey, was recently reported to the Cincinnati Academy of Medicine. The patient, who had been more or less intemperate, was overturned in a buggy, fracturing the os innominatum. In order to proceed with the investigation of the injury without causing suffering, it was proposed to administer pure washed sulphuric ether, as the unanimous opinion was that chloroform would not do for this patient.

The patient was lying on his back, with his head low, slightly raised above the level of the back; his feet touching the rounds at the foot of the bed, and heels resting on the bed; the left limb moving at will, the right held down by one of the family; the right limb shorter by an inch and a quarter, and the foot slightly everted.

I examined the heart, says Dr. M., and noticed a perfect regularity in its action, of moderate force, with indistinctness of sounds, which I attributed to the distance from the ear, on account of the superimposed adipose tissue. The pulse was soft, of moderate force and fulness, and, by estimation, 75 to the minute.

The ether acted kindly, and was breathed easily; it stimulated the pulse to increased force and fulness, with at first a considerable increase in the frequency, which subsided, however, in a few minutes, to the original point.

In the course of ten minutes the patient raised up, attempted vomiting, and succeeded in throwing off about two ounces of fluid; five or six minutes later, he again raised on the left arm and vomited about one pint of dark-colored watery fluid; no blood or food was mixed with it. On lying down, the pulse was more feeble, and a profuse perspiration was noticed upon the body. Dr. J. Vanharlingen says he noticed the perspiration before the vomiting.

Dr. Robert Vanharlingen noticed during the effort of vomiting that the patient moved and flexed, with apparent ease, the affected limb. On lying down, the patient was apparently relieved, and as the pulse became fuller, the administration of ether was resumed, and the fulness and force of the pulse was maintained till within ten minutes from the time of vomiting, when the patient was in a condition to admit of manipulation with the limb.

I took hold of it and flexed the leg upon the thigh, and the thigh upon the pelvis, and rotated the limb till I was convinced there was no dislocation or solution of continuity of the thigh-bone; but twice I perceived a distinct rubbing sound like crepitation. Dr. J. Vanharlingen also noticed this peculiarity.

At the time of seizing the limb for examination there was a peculiar shortness of breath, of an asthmatic character, and Dr. J. Vanharlingen remarked that he was subject to attacks of asthma. On noticing this peculiarity, the use of ether was suspended, and not resumed; but the manipulation was proceeded with—the patient screaming out and writhing with pain, and apparently perfectly conscious. Seeing that his lips were purplish, and his breathing still very short, I proceeded to administer for his relief; he called for water—a little was given him, and a little vinegar was put in it, when some whiskey was procured and administered in warm water; but little, however, was taken. The patient complained that he was suffocating, and the tongue was drawn out, though there was no lack of control of it, as he put it out to take the stimulants. He was rolled



upon the side; water was thrown in his face—first cold, then hot water applied to the forehead. The Marshall Hall method of artificial respiration, and the additional one of inflating the lungs from my own lungs with forced expulsion of air, and flagellation of buttocks, were continued fifteen or twenty minutes, when the patient was abandoned as dead.

The ether was from the manufactory of Powers & Weightman, Philadelphia. By measurement, four ounces of ether was used. I administered it myself upon a handkerchief, placed in a towel, folded funnel-shaped, and there was a large admixture of air. I watched the breathing, and frequently noticed the pulse, though the Drs. Vanharlingen each had a wrist in hand.

The patient had eaten a little bread and tea during the forenoon, which was all he had taken since the breakfast of Thursday.

The *post-mortem* examination revealed much fat about the abdominal viscera; the right kidney was of unusual size, two thirds larger than natural, highly engorged with blood, and in good condition; the left kidney wanting, or in its position the fat inclosed a single membrane of a dark-brown color, and the thickness of coarse paper, of about three square inches in extent. Liver enlarged, smooth, of a light color, slightly engorged, and of softened texture, breaking down easily between the fingers. Beneath the pelvic fascia there was a large deposit of venous clot, extending on the right side under Poupart's ligament into the femoral canal, it being impossible to ascertain its source.

There was a large adipose deposit upon and around the pericardium, and one ounce of serum within its cavity. Fatty deposits upon the auricles of the heart, but no structural disease, other than an absence of the usual redness and firmness of the tissue; blood in the right auricle; ventricles empty; lungs distended with air, and engorged with blood; there were no pleuritic adhesions or anything unusual in structure. There was no examination of the brain. The blood throughout the body was very dark colored.

In view of the case, I did not hesitate to say to the family, that there were internal injuries sufficient to have destroyed the patient's life in a short time, but that the administration of ether had apparently hastened the result, though I was of the opinion that the manipulation with the limb *without ether* might have been attended with like consequences, on account of the extreme irritability of the nervous system—amounting almost to tetanus—and the feeble powers of resistance, for which the constitutional peculiarities of the patient were accountable. This expression was fully concurred in by the physicians present.

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MEDICAL COLLEGE COMMENCEMENTS.—The number of graduates at the recent commencement of the Cincinnati College of Medicine and Surgery was 36, most of whom were from the Western States. It appears from the circular that no student is admitted to an examination for the degree of M.D. in this institution, unless he signs the following:—

“We, the undersigned, students of the Cincinnati College of Medicine and Surgery, and candidates for the degree of Doctor of Medicine, Session 186–, do, hereby, individually, acknowledge the right of the Faculty to revoke said degree, and demand the return of the diploma granted, should we engage in *Quackery*, or be guilty of gross *unprofessional* conduct.”

The Ohio College of Dental Surgery held its annual Commencement in Cincinnati, February 20th. Diplomas were granted to five persons. Prof. J. Richardson made an appropriate valedictory address.

The Commencement of the Pennsylvania College of Dental Surgery took place in Philadelphia, Feb. 28th. Thirty-six graduates received diplomas. The valedictory address was delivered by Mr. William Calvert, Dean of the Faculty. During the past year, 4601 operations have been performed in the operative department of the College.

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THE Transactions of the American Medical Association, Vol. XIII., are published, and are now ready for delivery. This volume, amongst other interesting matter, contains Dr. Sayre's interesting article on Hip Disease.

The following volumes are also for sale. Proceedings of the meeting of organization, 50 cents. Vols. I., II., III. and IV. are out of print. Vols. V.,

VII., VIII. and IX., if taken collectively, \$5.00 for the set. If singly, \$2.00 apiece. Vol. VI. at \$2.00; Vol. X. at \$2.00; Vol. XI. at \$2.00; Vol. XII. at \$3.00; Vol. XIII. at \$3.00. Any gentlemen in this neighborhood wishing any of the above volumes are requested to send their order, as soon as possible, to

Dr. J. N. BORLAND, 9 Chestnut St.

**POISONING BY THE INTERNAL USE OF CHLOROFORM.**—A case is related in the *American Medical Times*, in which one ounce of chloroform was swallowed by a girl of 18, for the purpose of self-destruction. She fell heavily on the floor immediately after taking it. In twenty minutes, Dr. Finnell forced down the throat an ounce of powdered ipecac mixed with warm water. In a few minutes she vomited, then became gradually comatose, with stertorous breathing, feeble and rapid pulse, and contracted pupils. Mustard was applied to the extremities, cold water dashed in the face, with flagellation at short intervals. Consciousness began to return in half an hour, and in three hours she had entirely recovered.

### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MARCH 2d, 1861.

#### DEATHS.

	Males.	Females	Total.
Deaths during the week, . . . . .	41	33	74
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	39.0	42.1	81.1
Average corrected to increased population, . . . . .	..	..	90.5
Deaths of persons above 90, . . . . .	..	1	1

#### Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
11	1	5	4	0	0	1	2	2

#### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	30.068	Highest point of Thermometer, . . . . .	54°
Highest point of Barometer, . . . . .	30.478	Lowest point of Thermometer, . . . . .	12°
Lowest point of Barometer, . . . . .	29.500	General direction of Wind, . . . . .	NW. & SW.
Mean Temperature, . . . . .	38°.21	Am't of Rain (in inches) . . . . .	0.228

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 585.

		BAROMETER.			THERMOMETER.			SNOW & RAIN		Mean Amount of Cloud. 0 to 10.
		7 A.M.	2 P.M.	9 P.M.	7 A.M.	2 P.M.	9 P.M.	Time	Meas-ure	
Monday, Feb. 18		29.40	29.33	29.22	0	25	26	6 hours, 00 m.	0.83	5.25
Tuesday, " 19,		29.03	29.01	29.20	24	32	31			
Wednesday, " 20,		29.30	29.43	29.55	20	27	20			
Thursday, " 21,		29.64	29.56	29.44	10	31	33			
Friday, " 22,		29.18	29.02	28.93	39	55	54			
Saturday, " 23,		28.99	29.16	29.40	23	18	15			
Sunday, " 24,		29.75	29.84	29.71	10	25	26			

REMARKS.—Wind prevailing from the West; storm from the West at 9 o'clock, P.M., on the 22d, lasted 30 hours, with lightning and thunder.

ERRATUM.—Page 86, 8th line from bottom, for "Nassau" read *Nashua*.

BOOKS RECEIVED.—A Practical Treatise on Phthisis Pulmonalis, embracing its Pathology, Cause, Symptoms and Treatment. By L. M. Lawson, M.D. Rickey, Mallory & Co., Cincinnati.—Report of the Pennsylvania Hospital for the Insane, for the year 1860. By Thos. S. Kirkbride, M.D.

MARRIED.—In this city, 28th ult., Dr. J. Wellman, of Salem, to Miss Jrs. C. Cressy, of Marblehead.—At Salem, 28th ult., Dr. Samuel C. Watson, of Chatham, C. W., to Mrs. Sarah L. C. Smith.—In Otisfield, Me., Feb. 4th, J. P. Webb, M.D., of Bridgton, to Miss E. H. Nutting, of O.

DIED.—At Lynn, 3d inst., Freeman Horton, M.D., 45.

DEATHS IN BOSTON for the weeking Saturday noon, March 2d, 74. Males, 41—Females, 33.—Accident, 2—anaemia, 1—apoplexy, 1—inflammation of the bowels, 2—congestion of the brain, 4—disease of the brain, 3—inflammation of the brain, 1—consumption, 11—convulsions, 4—croup, 1—debility, 1—diphtheria, 2—dropsy, 1—dropsy of the brain, 1—dysentery, 1—epilepsy, 1—scarlet fever, 5—typhoid fever, 2—gastritis, 1—disease of the heart, 1—disease of the hip, 1—infantile disease, 2—intemperance, 1—disease of the liver, 1—inflammation of the lungs, 4—marasmus, 1—old age, 2—paralysis, 2—peritonitis, 1—pleurisy, 1—premature birth, 1—puerperal disease, 3—scrofula, 1—unknown, 5—whooping cough, 2.

Under 5 years of age, 29—between 5 and 20 years, 7—between 20 and 40 years, 17—between 40 and 60 years, 10—above 60 years, 11. Born in the United States, 45—Ireland, 25—other places, 4.



THE  
BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXIV. THURSDAY, MARCH 14, 1861. No. 6.

POISONING BY ARSENIC IN WALL-PAPER.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—At the last meeting of the Boston Society for Medical Improvement, Dr. F. S. Ainsworth reported a case in which a child was made very sick by poison sucked from the surface of a green concert ticket, which, as proved by my analysis, was covered with Scheele's green, or the arsenite of copper. By copious vomiting and the use of albumen, the poison was removed from the stomach of the child, so that a fatal result was avoided.

Inquiry has been made as to how much arsenic there was on that card, and I therefore send you the results of my analysis. A duplicate ticket of the same kind and color as the one sucked by the child was brought to me by Dr. Ainsworth, and it was found to be heavily incrustated and colored by Scheele's green, portions of which I scraped off with a knife, and reduced metallic arsenic from it by heating it to redness in a closed glass tube with black flux.

I then dissolved off the coloring matter from one half the card, and analyzed it quantitatively, and found that the proportions for the whole card were

Arsenious acid . . . . .	1.07 grains.
Oxide of copper . . . . .	0.41 "
Total . . . . .	1.48 grains of Scheele's green.

Such a quantity of arsenic, if it had remained in the child's stomach, would certainly have proved fatal to life.

Tickets colored with these heavy opaque pigments are generally made of brown paper or pasteboard of inferior quality, the color covering this poor material. A stratum of prepared chalk, or of white lead, is generally laid on the paper as a basis for the coloring matter.

It is not uncommon to find wall-papers stained or coated with the above-named dangerous arsenical compound, and several instances of its poisonous influence have come to my knowledge.

One, I remember, in which I was consulted some ten years ago, was a case in which a gentleman was seriously affected by symptoms of arsenical poisoning from having slept in a room papered with hangings of this kind. The paper, analyzed by me at the time, was found to be stained with Scheele's green. It is uncertain whether the powdered pigment, which rubs off very easily, and is transported by the air, produced the poisoning, or that the effect was produced by the formation of arsenide of hydrogen which would form from humidity of the air decomposing the paste and the arsenical compound, but it is certain that persons have been made very ill, with all the symptoms of arsenical poisoning, owing to sleeping for a length of time in rooms papered with hangings of arsenical pigments.

Since there is another green used in paper-hangings, which may be mistaken from its color for Scheele's green, I would state that it is easy to distinguish chrome green from Scheele's by the action of a drop of muriatic acid. Chrome green is made by mixing Prussian blue and yellow chromate of lead. A drop of acid will take up the chrome yellow and leave unaltered the Prussian blue. Scheele's green and all the arsenical green pigments are entirely dissolved by the acid, and leave the natural color of the paper.

The arsenical pigments are also easily recognized by scraping off some of the pigment and dropping it on the surface of a piece of burning charcoal; the garlic odor of arsenic will be instantly perceived if it contains arsenic. If the pigment is dissolved from the paper by muriatic acid, add a slight excess of a solution of carbonate of potash or of soda, and the copper will be separated and a solution of arsenite of the alkali will be obtained. Decant or filter this and neutralize it with muriatic acid, or render the solution slightly acid. Then pour in an aqueous solution of sulphide of hydrogen, when the arsenic will be thrown down as the yellow sulphide of arsenic.

Or, if another test is desired, dissolve the pigment in nitric acid and treat with an alkaline carbonate, as before described, and apply a stick of nitrate of silver to the slightly alkaline solution, when a curdy and yellow arsenite of silver will be obtained.

Those who wish to obtain the arsenic in its metallic state, may readily do so by dissolving the pigment in dilute sulphuric acid, and then reducing it in Marsh's apparatus by hydrogen. The first tests named are all physicians may need to satisfy them they are dealing with arsenic; for a more full analysis they will be likely to apply to a professional chemist, but it is proper that they should possess the means of deciding instantly, on the spot, whether there is arsenic present or not.

It is obvious that some law should be made preventing the sale of poisonous papers and cards, for the rising generation run much risk if poisonous cards, frequently given to children as playthings, are allowed to be circulated among the people. Poisonous paper-



hangings are entirely unnecessary, since equally handsome colors may be obtained with safe materials.

It should be made known to the public, that some of the high-colored confectionary is painted with poisonous matters. Green arsenical pigments, chrome yellow and vermilion are frequently employed. A chemical friend lately informed me that he bought some lobster candy in the streets of Boston, which was richly colored yellow by the chromate of lead.

Glazed visiting cards (now happily out of fashion) were incrust-ed with white lead, a slow poison; and I have occasionally seen children's mouths bedaubed with this poisonous preparation of lead, from sucking visiting cards given to amuse them.

While we are watching our leaden aqueduct pipes with so much fear of lead poison, it is well to keep a look out on other sources from which we or our children may unwittingly get a dose of lead. All poisonous preparations ought to be legally prohibited in confectionary, and also in the preparation of cards, tickets, and wall-papers.

CHARLES T. JACKSON, M.D.,

*Boston, March, 1861.*

*State Assayer.*

NOTE.—Since the above was sent to the printer, three new cases of injury, believed to have arisen from arsenical paper, have been brought before me, and I have analyzed the papers, which I found to be colored by an abundance of Scheele's green. In one of these cases, a lady, after cutting out the figures on 90 yards of green border paper, was severely poisoned, suffering from burning in the throat, nausea and diarrhoea. This case shows that the dust of Scheele's green, inhaled, was the cause and manner of poisoning.

C. T. J.

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## DR. WARE'S LECTURES ON GENERAL THERAPEUTICS.

[Communicated for the Boston Medical and Surgical Journal.]

### LECTURE III.

GENTLEMEN,—I referred, in the last Lecture, to the difficulties which beset the physician in coming to correct conclusions in therapeutics. It is well fully to recognize how great these difficulties are, and in order to this it will not be amiss to dwell upon them for a few moments longer. They arise partly from the immense variety and uncertain character of the facts upon which conclusions are to be founded; partly upon the difficulty of ascertaining and collecting these facts; and partly from the peculiar conditions under which they are observed.

The treatment of every case of disease may be considered as a sort of experiment: yet it is an experiment which can never be made a second time under the same circumstances. In this respect it differs essentially from experiments in other branches of science, chemistry for example. If the chemist doubt as to any

result at which he arrives from an experiment, he has but to repeat it; and he is confident that he can do this as often as he pleases under exactly the same conditions. These conditions are capable of being precisely determined. His subjects are substances whose proportions and relations are definite and constant—all the materials employed are equally well known, and every detail may be submitted to the rigid scrutiny of weight, measure, number and time.

How different is it with that experiment which the physician performs in the treatment of disease! His subjects—the bodies of living men—are no two of them alike. He cannot even be sure that any one of them is alike on two successive days, and yet he cannot tell why they are unlike, nor in what they are unlike. He gives to two patients, for instance, with the same disease, on the same night, a common pill of calomel, antimony and opium. One of them vomits and is purged severely; the other perspires and sleeps quietly. He gives the same pill to a single patient on two successive nights. He gets, on these successive nights, these two different results in the same subject. This is only a sample of the uncertainties which meet us at every turn. They are of daily and hourly experience. Every man's constitution is as perfectly individual as his character; and, as we can only imperfectly guess how motives will influence his mind, so we can only as imperfectly guess how remedies will act upon his body. We can weigh and measure nothing but the medicines we give, and we can have no assurance that the same measure and weight will have the same effect at any two consecutive periods. Then, too, the body is constantly liable to the influence of causes that may modify its condition—such as heat, cold, weather, electricity, food, state of mind; and yet when changes occur, it is impossible to say whether they are owing to these causes, or whether they are simply parts of the disease, or are due to medicines that have been given. The chemist performs his experiments with elements which are constant and equal. The physician his, with those which are inconstant and unequal. The chemist, in the tranquil solitude of the laboratory, is concerned only with the impassive atoms of the inorganic world. The physician, in the busy sick room, is concerned with suffering bodies, in which beat anxious hearts. The experiment of the chemist, as I have said, may be indefinitely repeated—the experiment of the physician, never. The chemist can make the conditions under which his experiment is performed—the physician must accept them as they are offered. The same conditions can never be restored. His conclusions can, therefore, be only approximations to the truth. He can only suspect, while the chemist knows; he can only conjecture, while the chemist demonstrates.

This is a strong, and yet, in the main, a true picture of some of the difficulties attending on judgment in medicine. Yet it is



not to discourage us, for they are not peculiar to medicine, but belong in some degree to all subjects where the living, thinking and feeling man is one of the elements to be taken into account. In spite of them, we are still able to arrive at valuable practical results. Mankind are possessed of a strange and mysterious power, almost an instinctive one, of comparing facts, balancing probabilities, striking averages, and thus of arriving at general results with tolerable accuracy. The difficulties to which I refer lie, for the most part, within assignable limits. Although there are great differences in human constitutions, there is still a general resemblance. There is a general resemblance, too, in the way in which they exhibit disease and are affected by remedies. They are similar, though not identical. Small departures from a given standard are universal. Wide departures are comparatively rare. Observation and experience, under the guide of that latent and unconscious instinct of generalization to which I have referred, permit us to form judgments approximating as much to true ones as those upon which we are obliged to act in many of the concerns of life.

Great uncertainty attends the collection of the facts of a case, and here is another source of difficulty in judgment. I do not now refer to an imperfection proceeding from inattention, indifference or want of knowledge in the observer, but to the necessary impediments to a full and accurate investigation. A general sketch of these impediments will serve further to illustrate the difficulties to which I refer, and also to put us on our guard against sources of error. We get our information concerning the facts of a case, especially its symptoms, partly from our own observation, partly from the narrative of the patient, and partly from the account given us by the nurse and the friends. Here we have three distinct sources of information, and the value of that derived from each depends upon the capacity of the observer and his opportunities. The physician is trained to observation. He is calm, dispassionate, and, to some extent, disinterested. He knows what to look for; he will consequently often see what a common bystander will overlook. He sees symptoms in their true relations, and in their actual degree, whilst, in both these respects, others are liable to fall into great errors. But then his inspection of the patient is transient, occasional, often hurried. He sees things, therefore, only as they exist at a particular moment, and knows from his own observation nothing of the changes they may undergo from hour to hour, or of other appearances which may present themselves when he is absent. For a knowledge of these he is obliged to depend on the second-hand evidence he gets from others.

The patient, on the other hand, is not a dispassionate or disinterested, and often not a calm observer. But he can tell us of what no other one can—his feelings and sensations. He is also a second witness to many of the facts we get from the nurse and

friends. These give their impressions as to feelings and sensations as derived from observation of the patient. Both accounts are liable to be erroneous, and we are obliged to make up our opinion by setting one against the other, and correcting one by the other.

The nurse and the friends see less clearly and distinctly than the physician, but as they are constantly present they are witnesses to what occurs during his absence—to the evacuations of the patient, the effects of food, of motion, the state of his mind, his sleep, &c. &c.

There are still other ways in which we are deceived, not absolutely and necessarily connected with the inquiry itself, but dependent upon the character of the patient, his nurse, his friends and ourselves. The patient's anxiety, or timidity, or excited imagination, or want of fortitude, lead him to misrepresent or exaggerate his symptoms—such as the degree of pain, of weakness, of watchfulness, &c. He conceals or undervalues symptoms, lest he should be thought sicker than he is—or he magnifies or even imagines them, lest the severity of his malady should be undervalued. The standard of description varies in different persons according to temperament. With some, that pain is agony and torture, which by others is spoken of as troublesome and annoying. With some, a morbid love of excitement and sympathy, a fancy for being thought very sick, leads unintentionally or designedly to extravagant forms of speech—whilst in others, the opposite frame of mind prompts to speak slightly of formidable symptoms. The former is more frequently observed among women—the latter, among men.

The variety in the characters, interests and relations of those about the sick, lead to analogous errors in the views they entertain and the descriptions they give. The young timid and anxious mother, who watches by her infant through a long and dreary night, will alarm you by a frightful narrative of startings and cries and cramps and spasms, when the calm and experienced nurse has seen only a little restlessness and fever, and the indications of wind in the bowels. Some friends are anxious and fearful of evil, and look only on the dark side; others are cheerful and hopeful, and can never realize the presence of actual danger. They interpret symptoms according to their fears or their hopes, and as they interpret they describe. The amount of intelligence, the capacity for the use of language, vary indefinitely, and consequently the description of circumstances of time, number, quantity and color, may vary far from the truth. One watcher will tell us that the patient has been up and down all night, when another simply speaks of three or four discharges from the bowels. A few spoonfuls of blood will be represented as half a pot-full; a simply dark color of the fæces, as pitch black; and other variations are there, equally wide from the truth, and equally perplexing.

The imperfect knowledge of the conditions of sickness among



those who have the care of the patient, is a fruitful source of error in the description of symptoms. To inexperienced persons, disease has often something mysterious and awful in it. They do not know what to expect; they have no power of appreciating the character or the relative importance of what they witness, and there is consequently a vagueness and often exaggeration in their descriptions, or, on the other hand, important omissions in the account they give of the phenomena which have occurred. The most common occurrences of disease, the most ordinary symptoms, alarm them as extraordinary and frightful. They will fancy a patient dying, whom you find in a peaceful slumber—in a raging fever, when he has merely the headache or the moderate paroxysm of fever which is so common in acute diseases—or delirious, because he utters merely a few incoherent words on awaking from sleep.

In the sick chamber, whilst it is generally the place where are exhibited the noblest and most tender feelings of our nature, we may encounter those which are frivolous, mean and detestable. Thus we sometimes detect in patients upon the sick bed, the same affectation, the same love of display, the same craving for being objects of attention and interest, which distinguished them in health. Among the friends are often those who enjoy the parade and excitement which so often attend a severe fit of sickness; whose self-esteem is gratified by the importance attached to it; who love to be soothed by that sympathy and those kind offices which dangerous disease is sure to call forth. Besides these, we meet those at the bed-side who have a keen, almost idiosyncratic relish for the darker shades of life, and who experience a not unpleasing stimulus in the presence of danger and suffering, somewhat like that which prompts so many to rush to the scene of a fearful accident or to that of a public execution. All this necessarily interferes with accuracy of observation on our part, and colors, insensibly, the history we get from others. There are even those occasionally around the patient to whom a fatal termination of his case is a desirable event; sometimes even those who distinctly wish it, and that from various causes. To one, his death will be the means of a positive advantage; to another, it will be the removal of a trouble, a burden, or a disgrace; to another, he has been an object of distrust or aversion, or a source of unhappiness—whilst some one of those ravens that croak in sick rooms “has said he would die from the very first,” and expects the gratification of a melancholy pride in the accomplishment of the prediction. Such feelings are not often cherished; they are seldom, such is human self-deception, perceived to exist; if perceived, it may be with pain and self-reproach. Nevertheless, their existence, latent as they are, and subtle as is their operation, can be sometimes detected; they influence the judgment of symptoms, and the representations given of them. We may be placed in circumstances of

still greater difficulty of judgment; for we may be compelled, unknown to ourselves, to stand side by side with the murderer of our patient, who, of course, is interested to blind us as to the cause of his death, and defeat our efforts to prevent it.

The morality of the sick-room is not always of the choicest kind. To deceive the physician is regarded, too often, as no sin by those whose consciences are tender enough upon every other point. Hence statements will be made, known to be false, concerning a variety of circumstances of no inconsiderable importance, especially during convalescence. Professed nurses, in particular, are exceedingly prone to this species of iniquity, and require to be regarded with a watchful eye. I would utter no word of reproach upon this most useful and much enduring class; and I have known among them many of the best specimens of woman kind—honest, truthful, self-sacrificing and tender-hearted. Their temptations are many—their position difficult—their hardships great. Their ranks are necessarily often filled by those who are but illy fitted by education, manners or personal character for the responsible duties they assume. The relation of the nurse is peculiar and delicate. It is too often assumed that if anything goes wrong with the patient, somebody is in fault. There are many persons in the world—in the sick room, as everywhere else—who, when evil occurs, take comfort in laying the blame upon somebody. On these occasions, the nurse is too often the scape-goat, and she is sometimes most unjustly and cruelly judged. It is our duty, wherever truth and honesty will admit, to shield her good name, as upon it depends, often, her own living and that of others. It is painful to be obliged to say that her reputation is sometimes sacrificed in order to defend that of the physician from a fancied imputation, and a meaner act can hardly be committed.

It is necessary, however, to be on our guard in our intercourse with nurses, and to learn how to judge of their characters, for in various ways, intentionally and unintentionally, they may seriously mislead us. They are somewhat apt to think well of their own knowledge of diseases and remedies as compared with the physician—especially if he is young in practice—and to interfere with his directions and depreciate his opinions. They have often theories of their own, which influence their observation and lead them to give their judgment of a fact, instead of the fact itself. With some, their predominant object is to commend themselves to your good opinion; and with others, to make it appear that they know more than you do, to show themselves off to advantage, to give such an account as will redound to their own credit. The fear of being blamed sometimes leads them to misrepresent or conceal occurrences of importance, whilst the expectation of commendation induces a disposition to exaggerate or invent. Thus, in various ways, they may seriously impede the understanding of a case. Still, on the other hand, the aid of an experienced nurse is often



invaluable, and her opinions on certain points are sometimes more just than ours, especially with regard to young patients, and also with regard to the severity and amount of danger in a case.

And here let me interpose a word of counsel, suggested by the subject, the observance of which may save you some uncomfortable moments, and your patients some hard thoughts. Do not assert too confidently that a sick person is in no sort of danger, when all around him are confident that he is. Especially in the case of the sick children of young mothers—and these constitute no inconsiderable proportion of our practice—do not treat slightly, especially do not ridicule, their alarms. Alarms they are, even if unfounded; they can be soothed, but not removed. However causeless they may be, conceding something will sooner dispel them than the boldest assertion; whilst, such is the fallibility of prognosis, it may happen that in a case which really exhibits no formidable symptoms, they will be developed as it advances; and it may also happen that unfavorable indications are so fitful and transient that they are never exhibited to us, and yet impress themselves strongly on the minds of those who are in constant attendance. Whenever, then, those around the patient are convinced that the danger is great, it is unwise to assert authoritatively that there is none at all. It is better to admit their view of the case to be possibly the true one—which it sometimes happens to be. And it is, I believe, easier to allay apprehension and soothe anxiety and disquietude, where you in some measure partake of them, than where you entirely deny any cause for their existence. There is hardly anything which friends find it so hard to overlook, as the slight or ridicule of fears which the event proves to have been well founded.

There are many causes of error, in getting the facts of a case, in ourselves. These are to be recognized, and fortunately they can be, to a good degree, obviated. A case may be approached with a strong preconception as to its nature. A few prominent symptoms may catch our attention at first, and suggest a peculiar view of it so as to produce such a preoccupation of mind as to vitiate our whole investigation. Or our previous knowledge of the individual may have a similar influence. You know, for instance, that such a woman is extremely nervous, and is constantly fancying herself the subject of some dreadful malady. If called to her, you approach her bed-side with the conviction that whatever you find will be of nervous origin, and you are insensibly led to put this construction on whatever you discover. In this way, the character of her case may be misjudged, and a very severe disease be taken for a very slight one.

Or the state of mind may prejudice investigation in another way. One may be especially interested in a particular disease, or have just read some very impressive book which treats of it, and go to the bed-side with the mind full of it. Now, as in

many diseases, all the organs of the body are more or less the seat of symptoms, there is a propensity to throw together and insulate those that correspond to the malady we are in search of, to overlook or throw out of sight all others, and to think we have found it. A new, striking and popular treatise on any disease, is certain to be followed by a great prevalence of that disease. We put leading questions—we direct the patient's attention to the suspected organ, and procure an acknowledgment of the existence of symptoms which we have ourselves suggested. This is very likely to happen with regard to organs whose sympathies are widely extended, and the symptoms of whose maladies are numerous and heterogeneous—as the stomach and the womb. Patients and nurses are easily led to aid us in this work of self-deception. They have observed imperfectly—they have no definite ideas of what they have observed, and, when at a loss for an answer, they will fall in with our own train of inquiry and reply as they see we are expecting or hoping they will reply.

A hasty, an indifferent or a random mode of investigation may lead us to overlook symptoms that are not prominent—that are even latent—and yet should have an important bearing on our judgment. Such, among many examples, are the presence of sugar or albumen in the urine. They do not obtrude themselves on the attention either of the patient or physician—they are latent; they must be sought for at the expense of a little trouble. But in reality they are each often the key to the character of the case in which they appear, and decide its result. Their detection will serve to clear up what was before a vague and promiscuous mass of symptoms.

There is a source of error of a different kind in forming our judgment of the results of treatment, so far as this consists in the administration of medicines. It is difficult to be sure of the qualities of the articles which we give. Those from the vegetable kingdom are subject to great variations of strength. We give nominally the same thing, but our specimen, in a given weight, may contain twice the quantity of that peculiar element upon which its efficacy depends, that another does. Plants are liable to change by time, or in the process of preparing them for use. They may have grown in the shade, or in an unfavorable soil; their juices may be imperfectly elaborated; they may be gathered in an unripe state. Their essential principles may, it is true, be chemically extracted and presented of a more uniform composition and strength, as in the case of quinine and morphine, but even these may be imperfectly prepared or be adulterated. Mineral drugs are not liable in the same way to variability of composition. Their preparation may be perfectly uniform and exact, but they are still capable of great adulteration, and to an uncertainty as to the judgment formed of their effects on the body, and their influence on disease.

[To be continued.]



## TRIAL FOR MURDER BY POISONING.

(Continued from page 106.)

*Augustus A. Hayes.*—Reside in Boston. Consulting and analytic chemist and State Assayer. Have been a consulting chemist more than thirty years. Have studied the subject of poisons in connection with their elimination from bodies and stomachs, for more than twenty years. Have been very frequently employed in analyses in that time. I cannot state the number of examinations made for poisons in general. Have had a number of occasions to examine for strychnia, within last five years. I received, in March last, a package from Elisha A. Heath, a physician's travelling case, secured by a spring catch, containing three or four packages and a note from Dr. Hubbard. (Note produced.) The package contained a bottle, containing a stomach and its contents, sealed; a package wrapped in paper, said to be a liver; a glass jar, of which the sealing had been burst by gases, containing a portion of intestines; and a bottle containing a fluid. The last were not examined. Examination was only upon stomach and contents.

I opened the jar and commenced the examination on the 19th of March. My notes were made as the examination progressed. On opening the bottle, the stomach was found reposing in about three to three and a half ounces of yellowish gray liquor. The stomach was removed, drained and spread upon a plate of glass, placed upon two clean porcelain bowls. It was then cut open, longitudinally, and spread out for physical examination. The inner surface was examined carefully for any adhering bodies, using a lens, without detecting any adhering foreign body, excepting a few particles of bran from flour and grain. The general appearances presented were, the upper part of the stomach reddened, and vessels gorged with blood. Very little of the mucous lining of the stomach remained at that part, and the delicate textures presented the appearance of having been acted upon. There was a wrinkled and contracted surface which did not penetrate through the outer covering or skin, and nowhere was the outer covering broken so as to exhibit marks of active corrosion; the other parts of the organ presented a greenish-gray color, the mucous membrane being somewhat slimy; at one part decomposition had already commenced, and the bloodvessels were filled with a dark greenish-black fluid. The application of weak alcohol to the surface did not produce any more extended reddish color.

The stomach was then chopped fine, and one fourth its volume, as near as could be estimated, was reserved for further experiments, and placed in alcohol. The fluid which had drained from the stomach and passed from it during the examination, had been allowed to repose, so that any heavy particles in it would have subsided to the bottom of the vessel. The more transparent part having been decanted, the deposit which had taken place was exa-

mined for solid heavy bodies, but none were discovered. There were some small grains of starch and particles of bran, and a few filaments, probably derived from the food. The fluid was divided, and one fourth part reserved and mixed with the reserved portion of the stomach. The other part was put in a suitable vessel, to which the larger portion of the stomach was added. It was now found that the reaction on test papers was decidedly acid. About three times the bulk of the whole mass, in quantity, of alcohol was added, and the whole brought to a temperature of 120° Fah. in a bath of warm water. A part of the filtered portion of this fluid was mixed with its bulk of pure hydrochloric acid, placed in a flask, which it nearly filled. A slip of bright copper foil was put into the fluid, and the flask, partly closed by a cork, was heated until its contents boiled, and the boiling continued about fifteen minutes. The bright surface of the foil was slightly discolored, but a subsequent examination proved that no metal had been deposited upon the copper. This is the first step for the discovery of metallic poison, which was indicated by the red color of the stomach.

In proceeding further in testing for metallic poisons, a portion of the alcoholic solution of the stomach and its contents was subjected to a current of hydrosulphuric acid gas for several hours, and the same portion was mixed with sulphide of ammonium, without discovering any traces of metals influenced by these tests. This closed the examination for metallic poisons in this stage of the process.

In the next step an alcoholic solution of oxalic acid was boiled, with the fluid contents of the stomach. This solution was mixed with an excess of hydrate of lime, evaporated nearly to dryness; the dry mass extracted by alcohol, again evaporated, and treated with alkaline ether. The ethereal solution afforded a very slight trace of strychnia.

The solid mass of the stomach, treated in the same way, gave more considerable indications, and enabled me to obtain the chromate of strychnia. By this course, the presence of strychnia was determined in the fluid and in the solid portions of the stomach, and the united products with the tests for strychnia corresponded in their indications with strychnia of known purity.

The final separation of the strychnia from the solid part, and some residue remaining of fluid part, was effected by acting upon the whole with the soft hydrate of lime, which at a moderate temperature resolved the solid part into a semi-fluid, and completely obliterated all organic structure. The soft mass was dried at a temperature below 100° Fah., reduced to a fine powder, and boiled with 94 per cent. alcohol, this operation being several times repeated, after the clear liquors had been successively withdrawn. The clear liquors were distilled by water bath, and the dry residue, left in the retort, was mixed with slight excess of diluted sul-



phuric acid. The solution thus obtained was warmed sufficiently to melt wax, and some purified wax with a little stearic acid were added, mixed thoroughly, and the whole cooled by cold water. The clear liquor which remained, evaporated to a small bulk, were mixed with soda and pure sulphuric ether; the whole warmed for a few hours, and allowed to become cool. The clear ethereal liquor was then decanted into open capsules of glass, and as the ether evaporated, feathery and prismatic crystals were left upon the surface of the glass. These crystals were dissolved in alcohol, the alcohol evaporated, and another form of crystal was obtained, which I have here. (Shown to the Court and Jury.) In this bottle is the sulphate of strychnia, formed from the crystals of strychnia, found in the solids of the stomach. (Shown to Court and Jury.)

Another portion of the same crystals was used in the experiments for determining what they truly were. The characters of the crystals as obtained were as follows:—when dissolved in dilute sulphuric acid, a drop mixed with ammonia gave a precipitate which became crystalline; with potash, a precipitate partly soluble in an excess; with chlorine, a curdling white precipitate; with the terechloride of gold, a bright yellow precipitate; with bichloride of platinum, a bright yellow precipitate; with iodine, a brown-yellow precipitate, soluble in alcohol; with iodide of potash, a white precipitate; with bichromate of potash, a crystalline yellow precipitate; with neutral chromate of potash, nearly the same; with tannic acid, a bulky precipitate of a white color; with sulphocyanide of potassium, it gave groups of crystals; bromine, a yellow flocculent precipitate. A very small portion of the crystals dissolved in water communicated an intensely bitter taste, leaving a metallic impression in the mouth. Nitric acid formed with the crystals a beautiful crystalline salt; sulphuric acid, a prismatic salt. These are the characters of strychnia; and another remarkable character is, that when the crystals of the sulphate are mixed with the powder of bichromate of potash, and a drop of strong sulphuric acid is added, a fine bluish purple color is produced, which fades through shades of red brown to yellow brown. (Experiments objected to, and finally ruled out.)

It is one of the remarkable and distinctive characters of strychnia and its salts, when brought in contact with a nascent oxygen, to produce a deep and beautiful blueish violet color; and in variations of the experiment, this reaction distinguishes it from all other bodies. This reaction has been obtained on the alkaloid and its salts repeatedly, and from various solutions; the results proving beyond any doubt that the substance separated by the different processes is the alkaloid strychnia, or strychnine as it is commonly called.

The final step was that of determining the weight or approximate weight of the alkaloid found in the stomach and its contents. For this purpose, the fourth part of the whole mass, which had been reserved, was taken, and by the lime process  $\frac{62}{100}$  of a grain

of crystals of strychnia were obtained. This would give  $2\frac{4}{10}$  grains as certainly present. Of this quantity, three fourths of the whole weight was contained in the solid part of the stomach.

A considerable quantity of sugar was found in the experiments made for the purpose of separating the alkaloids. There is in this bottle  $2\frac{4}{10}$  grains of strychnia. This weight of strychnia may be dissolved in an eighth of a pint of whiskey. If dissolved in liquor with a considerable quantity of sugar, it would disguise the taste in part. I applied a large number of tests besides those I have enumerated, which were quite as satisfactory. There were no exceptions to distinctive action in any of the tests. The substance separated was compared with strychnia of known purity at the same time and with the same tests, and afforded the same results in both cases.

Have no personal knowledge as to *post-mortem* appearances; my knowledge is derived from books. I think Dr. Taylor states that no particular appearances after death prove poisoning by strychnia. The most common appearance is a bended state of the spine, as the result of spasms and convulsions; the muscles firm, hands contracted, and a retention of this rigidity for some time after death. Don't recollect of any other. Have rarely attended to this branch of the subject.

*Cross-Examination.*—I have examined other stomachs previous to this. I cannot give names here. My practice is to leave names with my notes. The late Dr. Gay brought me several. I cannot give the name of any other person here. I have found strychnia in three cases. I have read on the subject of poisons since the preliminary legal examination. A part of the experiments and a part of my notes have been made since that examination. I was correct when I stated that all that relates to the experiments were made as the experiments progressed. I keep books in which I make entries of analyses, but those for poisons are distinct from these. I have not been called upon to show these notes to the counsel for the defence; I have been written to for a report I made to the solicitor.

I received the package about 2 o'clock, P.M., March 16th. Commenced the analysis March 19th. I wrote the note to Mr. Morrison on the 24th. I had then completed the analysis so far as to discover strychnia. I think I had then formed the salts of strychnia. The experiments for detecting strychnia were carried on at the same time with others for separating it. The first step was to discover it. I used alcohol to obtain solution. I produced crystals from the ethereal solution of the crude mass of the matter dissolved from the stomach.

Strychnia is obtained from *nux vomica*; is a strong base, almost an alkali. There are a large number of organic bases; some of them are more soluble than others in water, generally slightly soluble in water. I think they are not all precipitated by alkalies



alone. I think the correct statement would be, that they are all precipitated by the alkalies or alkaline earths. There is a marked indication of intense bitterness in strychnia, different in kind also from that of other substances. There is a peculiarity in the precipitates by the alkalies. The simple fact that it crystallizes or precipitates, is nothing when considered alone. Crystals of strychnia are in different forms—prismatic, and four-sided, or regular octohedrons. I don't remember another alkaloid that crystallizes in the two forms. Modified solvents produce different secondary forms. Rapid evaporation produces feathery crystallization.

In the color tests, I used different oxidating bodies. Produced colors in different ways. It makes no difference in the result, but a difference in delicacy is found. The same colors are not produced from other substances in the same way. I regard the color test as a valuable test. They were made in open day-light. It may be found stated in some books that the color tests are too fallacious. Dr. Taylor says they are so when used alone, and I am of the same opinion.

Nitric acid was never a test for strychnia. The tests with strychnia from other sources were confirmatory. The vessels were all tested to see that they were clean. The first thing was to determine if strychnia were present. I believe it had passed into the tissues and vessels of the stomach. Dr. Taylor is an eminent authority. He does not lay it down that strychnia cannot be found in the tissues of the stomach. I have the most of what I obtained here. I have not experimented with it upon animal life. That is a physiological experiment.

I have examined, I think, thirty stomachs for strychnia within the last ten years, in connection with analysis for other poisons. I have no assistant in my laboratory.

*Recalled.*—I have increased the amount of my information through my experiments and reading since this case engaged my attention. One half a grain, English, may be considered a mortal dose of strychnia. Death generally ensues within two hours after symptoms commence, i. e. after the tetanic spasms begin. If half a grain were given dissolved in spirits, upon an empty stomach, I think it would destroy life in three hours. I have made experiments upon animal life since yesterday. I used the sample shown the jury as crystals of sulphate of strychnia, dissolved in water. The solution was introduced into the stomachs of two frogs. The usual symptoms of strychnia poisoning were exhibited by these animals in a remarkable degree. The spasms, convulsions and contractions had the well-marked characters, and the animals died one within the hour and the other in about three fourths of an hour. That used was what was exhibited to the jury yesterday. The frogs were not rigid this morning. The observations were made upon five different animals, two of which were treated with the

substance found in the stomach, and three with other strychnia, and the results were the same.

*Dr. Hubbard, re-called.*—Assisted Dr. Hayes in the experiment. It produced spasms of muscles, twitchings, and resulted in death. There was less than half a grain in all.

Since I testified yesterday, I purchased a grain of strychnia, and introduced a portion of it into the stomachs of three frogs. I used about half of it, with the same results as with the substance used by Dr. Hayes, except that death did not ensue for some hours. All of them appeared remarkably limber this morning.

[To be continued.]

## ON THE USE OF SULPHUR IN DISEASES OF THE SKIN.

BY PROF. F. HEBRA, OF VIENNA.

[Translated for the Boston Medical and Surgical Journal, by Dr. B. JOY JEFFRIES, from the *Allgemeine Wiener Medizinische Zeitung*, Nos. 47 and 48, 1860.]

ALTHOUGH physicians of *ancient days* knew of the good effects of sulphur in the treatment of various chronic diseases of the skin, and were acquainted with its external as well as its internal use, yet latterly very decided doubts have arisen as to its specific effect, so that the same has taken place with regard to it as did with *mercury* in its relation to syphilis; believers and disbelievers in sulphur carrying on a warm contest.

These opposing views have induced us for a long time past to pay particular attention to sulphur and its various preparations, and to endeavor to ascertain why it has been extolled on the one hand as a specific for *all* skin affections, and on the other hand decried as exactly the reverse.

First of all, we must distinguish between the exhibition of sulphur as an *internal* remedy, and its *external* local use.

How efficacious a remedy sulphur is in diseases of the skin, when taken into the system through the stomach, may, we think, be answered thus. In small doses it is indifferent, and in larger ones, from its bulk, injurious rather than beneficial. The idea of some former physicians that sulphur would, for example, cure scabies only when its external use had been preceded by a prolonged internal one, we proved years ago to be erroneous by direct experiment; for we showed that when patients with "itch" were only given sulphur internally, they did not get rid of their trouble, whilst a small amount of a preparation of sulphur rubbed on externally, where the galleries of the insect were present, cured the disease by destroying the mites. We believe, therefore, that we may consider the question of the activity of sulphur in skin diseases, when employed as an *internal* remedy, as settled.

In the external use of sulphur, we must pay attention to the



preparation itself. As is known, either finely-divided sulphur in the form of flores sulphuris or lac sulphuris is used, or it is combined with soap as sulphur soap, or with alcohol as sulphur paste, or with fat or glycerine as sulphur salve, or in the form of sulphide of lime, sulphide of potassa, or sulphide of soda as a wash or bath. As its other combinations are not pure preparations of sulphur, we shall not consider them here; such as ioduret of sulphur, sulphuret of lead and sulphuret of antimony. We will, on the other hand, say a few words at the close in regard to sulphur fuming.

In order to get at the action of sulphur on the skin, it is first of all necessary to ascertain what are the appearances produced during life, when any one of the above-mentioned preparations is brought in contact with the sound skin, i. e., its *physiological* action.

In this relation we shall find that the different preparations of sulphur, like those of all other remedies, act differently on different skins, but that, nevertheless, the result of the continued use of sulphur is the same with all persons, and that therefore, as respects obtaining certain effects, the question will be, *how long* the particular form of preparation chosen is to be employed; moreover, which form it shall be, and in what amount.

Experience shows that in general, any form of sulphur brought in contact with the skin, produces irritation and then hyperæmia, in consequence of which there is a more rapid formation of epithelium, so that the upper horny layers of the epithelium are thrown off quicker; in short, redness, slight swelling and desquamation follow its use in every case. According to the irritability of the skin and the intensity of the action, so will be the degree of the appearances mentioned. More intense action will naturally occur with those persons who have blond or red hair and a delicate skin, with epithelium holding but little pigment, or with young people or in those whose skin is less resistant from the effect of disease, as chlorosis, tuberculosis, scrofula or syphilis. The hyperæmia will be increased, exudation will take place under the epidermis, showing itself as papules which afterwards change to vesicles, and the continued use of the remedy will finally cause these to burst and their contents to flow out. In short, we shall have those appearances which obtain the name of eczema in its papular and vesicular form. The subjective phenomena of itching will not be wanting, and the scratching it causes will excite still further irritation of the skin.

This action has long been known, and was explained in various ways. Physicians of former days thought that the production of an artificial eczema by sulphur showed that there must have been some "*acrimonia sanguinis*" or "*materia peccans*" in the system, which the sulphur set free. These appearances were considered as a beneficial crisis, to be promoted by the continued use of the remedy. If it was the natural sulphur-water which produced this artificial eczema, the latter was called "*bath eruptions*"

(Badausschlage), psydracia thermalis. The patients were congratulated upon the salutary effect of the sulphur springs they were employing. Hahnemann's whole theory is said to have been based upon this experiment; his maxim "*similia similibus*" upon the action of sulphur, which produced an eruption like scabies at the same time that it cured the disease.

Time has not, however, confirmed these different theories. Sulphur acts like many other substances and medicinal agents, partly mechanically, partly chemically, so that we can no longer speak of a specific effect purifying the blood of its acrimony, or promoting a beneficial crisis, and still less of any "similarity of effect." Analogous appearances may be produced by the mechanical irritation of the skin by tightly-fitting clothing, bandages, &c., scratching with the finger nails, by the use of tincture of cantharides, croton oil, preparations of mercury, salts of copper and iron, substances containing potassa or natron, strong soaps, tartar emetic, spurge laurel, veratria, nicotia, &c. From this we readily see that sulphur is an irritant to the skin, like very many other substances, to none of which has it occurred to any one to attribute the property of driving out a "*materia peccans*" from the body.

*These results, then, as our basis, teach us that sulphur is one of those agents which produce in the healthy, as well as in the diseased skin, a hyperæmic condition, causing a more rapid formation of epidermis and an increased change of tissue.*

As respects the different preparations, we shall find that those have least of the mentioned effect which contain sulphur in its purest state, and it is increased in proportion as sulphuric acid, selenium or arsenic are combined with it, or when the sulphuretted hydrogen compounds are employed (*Schwefel Leber*). We shall find a great difference in the effect, according as we use an ointment of *lac sulphuris* or *flores sulphuris*, or whether we add common sulphur, or purified, to our vehicle, or whether we burn the sulphur and expose the body to its fumes, or wash the skin with a hydrothianate water.

In accordance with what has been said, we must vary the remedy as is indicated in each individual case, and where slight irritation or other effect of the sulphur is desired, for example, the destruction of the mites in itch, we should select the pure preparations rather than those containing sulphuric acid or sulphuretted hydrogen, reserving the latter for cases where a more energetic action on the skin is needed, and a more rapid and thorough change of elementary tissue.

These varying effects of the action of sulphur explain the very contradictory opinions which exist in regard to its benefit in the various affections of the skin. One, for example, who should employ a too strongly irritating preparation of sulphur in a disease due to an inflammatory process, whilst the inflammation was still present, e. g. an acute eczema, would see but an increase of the



existing trouble. On the other hand, another, using the same remedy in a chronic eczema of long standing, could but speak of its beneficial effect. The same opinion would be expressed of the action of sulphur, when the preparation indicated has been *only* so long continued as was needful to produce the desired result, whilst those who think that there can never be too much of a good thing, would learn the injurious action of this remedy. By observing, therefore, its effects, we learn its special indications.

Let us now pass to the individual diseases of the skin, in which experience has shown the preparations of sulphur to be of benefit. We will commence with scabies, and first answer the question, which is the *best* of all the sulphur compounds that have been proposed for the cure of this disease, inasmuch as the destruction of the *acarus scabei* and the removal of the trouble may be finally obtained by the use of any one of them. To begin with those whose action is *most unfavorable*, we should speak of the sulphur fuming, not, it is true, in general use now-a-days, but which still might induce one or another to try it again. The experiments which were made here in our general hospital in the treatment of itch with Carro's sulphur-fuming box, gave such unfavorable results, that they fell quite into oblivion. The average time required for the cure of patients thus treated was 77 days; the reason of which was, that the sulphuric acid generated by the burning sulphur not only killed the mites, but produced such an extended artificial eczema as required a long time for *its* treatment.

The sulphur baths, also, that were formerly considered the best mode of treating scabies, are not to be recommended. They destroy the mites but slowly, do not prevent the development of the eggs, and produce artificial affections of skin.

In this respect the sulphur ointments and sulphur soaps have proved much more beneficial, and the simpler the form of preparation to the exclusion of admixtures, the better. The purified sulphur, therefore, is better than the common.

The solution of the sulphide of lime,\* proposed by the Belgian "General staff physician" Vlemingx, and modified by our Prof. Schneider as we use it in the treatment of scabies, although its action on the skin is rather irritating, still has proved valuable in the cure of itch, from its rapidly killing the mites and thereby avoiding the necessity of its remaining but a short time in contact with the skin, and hence reducing to a minimum its tendency to produce eczema.

The success which we have obtained in the treatment of scabies with the modified solution of Vlemingx, has induced us to try it in other diseases of the skin, and we cannot but acknowledge to have found in this preparation a valuable addition to our

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\* The formula is—R. Sulf. citrini, libras duas; calcis vivæ, libram. Coque cum aquæ fontis libris viginti ad remanentiam libraram duodecim. Fluidum refrigeratum filtretur et detur usui.

dermatological therapy. For although we may be able to ameliorate prurigo by the use of schmierseife, tar, cod liver oil, sublimate, or some of the various preparations of sulphur and the sulphur baths, yet with none of them do we gain our end so quickly as with this solution of Vlemingkx. We have therefore, since some little time, continued our experiments with prurigo, following the method recommended by Vlemingkx for the treatment of scabies. The patients with prurigo, like those with the itch, are to be briskly rubbed all over with this sulphide of lime solution, for half an hour, and then lie in a warm bath at least an hour—thus taking, as it were, a sulphur bath by the sulphur from the skin being freed in the water. After this bath, a cold douche is the best to wash off the sulphur, and finally some fatty substance is to be rubbed in to render the skin more pliable.

Even after the first application, the itching troubles the patient much less, and generally disappears entirely after eight days use, whereby the cause of the *scratching* is removed, and therefore no *new excoriations* are produced, so that, by the end of this time, an individual with considerable prurigo will exhibit a much more healthy-looking skin. Unfortunately, in this incurable disease, its whole object cannot be obtained by this preparation; for if we discontinue the use of the sulphur the affection of the skin shortly returns. As, however, this method occupies but a short time, is much more effectual than any other, is moreover agreeable rather than troublesome to the patient, it is at least of use to render this complaint more bearable.

Another skin disease equally difficult to cure, is psoriasis, and one that is generally in vain treated with sulphur baths, ointments and soaps, and only then yields when these are continually kept in contact with the skin, as for instance at such baths as those at Aachen, Baden, and especially at Louèche, where, as we know, baths are taken six and eight hours in continuo.\* This disease, psoriasis, will best give way to an energetic use of Vlemingkx's solution of sulphide of lime, according to our repeated observations.

For this purpose we have the solution, by means of a piece of flannel, rubbed briskly into each psoriasis-plaque till the epidermal masses are removed, and slight bleeding shows that the deepest layers of the epidermis are freed and the papillæ exposed. The patient then goes into a bath and remains an hour, after leaving which all the parts which have been so irritated are anointed with some simple fat (cod liver oil), or with tar or unguentum Rochati. These last are not, however, absolutely necessary, for we have repeatedly used Vlemingkx's solution alone, and we let the skin be anointed with oil or smeared with tar only, because, after leaving the bath, there is generally an unpleasant feeling left

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\* In thermis tanta est voluptas, ut multi per occiduum et amplius eis non egrediantur, sed cibum simul ac somnum in eis capiant.—FABRICIUS HILDANUS.



wherever the irritation of the sulphur rubbing has caused excoriation. These are not, however, absolutely necessary as we said, and it may be confidently asserted that the psoriasis can be cured by the solutio Vlemingx *alone*.

The use of sulphur in eczema requires the greatest caution. Acute eczema of an inflammatory character, on the face for instance, or in the hollow of the joints of young people, forbids its employment, as we have already remarked, whilst old standing eczema, without inflammatory symptoms, accompanied with great infiltration of the skin and situated on the extremities of adults, will be greatly improved, if not completely cured, by Vlemingx's solution. The infiltration disappears, the itching ceases, the patient does not scratch the part, and the reddened portions of the skin need only the use of the tar to entirely remove the disease.

It is, however, in the treatment of sycosis and acne disseminata and rosacea that sulphur and its compounds give the best results. We know with what want of success these diseases were formerly treated, and how only after repeated powerful applications they finally slowly yielded. But now, in the preparations of sulphur, we have an agent by which these affections can be readily cured without risk or pain.

Although we have repeatedly tried Vlemingx's solution, yet we can only recommend it for those cases of extended acne disseminata on the breast or back, occurring in individuals whose skin will bear a very powerful irritation. Hence in sycosis, and those forms of acne which appear on the face, a less intense action of the sulphur is preferable, such as that of lac sulphuris. Although the flowers of sulphur have for a long time formed one of the principal components of some secret remedies, such as Kummerfeld's wash and other cosmetics, and also of some physicians' prescriptions, yet it was at Dr. Zeissl's recommendation that we first tried sulphur in these diseases.

As we have already had a considerable field of observation in this respect, we are happy to repeat that the sulphur has proved a brilliant success in these diseases. We generally use it in the form of lac sulphuris, combined with equal parts of glycerine and alcohol, and after having the parts that are covered with the papules of acne or sycosis thoroughly washed, we let this paste be rubbed in. As there are but few people who would give their whole time to the treatment of a disease affecting the general health so slightly as this, we have found it best to have the inunction made at night before retiring, and have the application, after remaining on over night, washed off in the morning. Whoever will take the time for it, will do better to use the paste night and morning, and so allow it to be in constant contact with the skin. The papules formed by the deep-seated collections of pus, are of course to be freed of their contents, which is best done by punctures through the epidermis down into the corium, or by pulling

out with pincers the little hairs that pierce the papules and pustules. This is to be done before the application of the above-mentioned paste.

No matter how severe the sycosis may be, it will always yield to this treatment. And it is only a question of time and the diligent use of the remedy, to get rid of the affection of which we speak.

The more rapid change of tissue in the epidermis, caused by the sulphur, explains the beneficial effects of the sulphur baths long used in the treatment of pityriasis versicolor. This disease is still confounded with *chloasma hepaticum* by our cotemporaries in France, and is thought to depend upon an affection of the liver. Its yielding to the continued use of sulphur baths, and the disappearance of the pigmented patches from the *removal of the epidermis crowded with fungi*, is again considered a proof of the yielding of the original cause, the hepatic trouble. Although washing with simple soap and water, if it is only thorough and continued, will suffice for the removal of these parasites, yet Vlemingx's solution will effect this much quicker by producing a more rapid desquamation, and hence is a much better remedy than the use of soap or a solution of borax or sublimate.

We have also used the different preparations of sulphur as ointments or baths, but especially Vlemingx's solution, in several cases of ichthyosis, in order to remove the thickened layers of epidermis. Yet we cannot give them a particular preference.

And here, from the numerous cases that have come under our observation, we feel ourselves authorized to answer a question which has been much discussed and even proposed as a prize question by the balneological section of the Imperial Royal Society of Physicians of Vienna. The neighborhood of the sulphur springs of Baden, near Vienna, where sometimes intentionally, sometimes from an error of diagnosis, many syphilitic patients are sent, has often given us opportunity to see the effect of sulphur upon this class of patients as well as upon those who have already gone through with a mercurial course, or those who have been otherwise treated.

Judging from these observations, we cannot agree with the idea that has been put forth, that the sulphur bathing recalls into life a latent syphilis that will show itself under new forms. We believe that, under such circumstances, the sulphur baths act like any simple warm or steam baths, solely by the heat. Those, therefore, who have gone through with a course of mercury, have no reason to expect that this will be driven out of the system by the sulphur. And we cannot see that there is any indication for sulphur bathing in these cases, either as a preventive of syphilis or a cure for the effect of mercury. In a word, sulphur baths neither drive syphilis or mercury out of the system, nor do they drive it in.



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 THE BOSTON MEDICAL AND SURGICAL JOURNAL.
 

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 BOSTON: THURSDAY, MARCH 14, 1861.
 

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THE Annual Commencement of the Massachusetts Medical College took place on Wednesday, the 6th inst., when thirty-nine candidates received the Degree of Doctor of Medicine. Among the graduates were several from the British Provinces, and we are glad to find Boston becoming more extensively known in that region as a place for medical education. The dissertations were very creditable, evincing a careful study of the subjects by the writers. The able address of Prof. Shattuck contained some account of the modes of instruction, and set forth some peculiarities in the organization of the school. It was listened to with marked interest, and we are glad to have been permitted to transfer it to our pages, where it will appear next week, and would commend it to the careful perusal of our readers.

A good deal has been said, at the meetings of the American Medical Association, about the provisions for medical education in our country; and the Massachusetts Medical Society, at a late meeting, appointed a committee to advise with a retired member, who proposed giving a large sum to the Corporation of Harvard University for the endowment of its Medical School. Money may be expended to great advantage, in furnishing medical schools more thoroughly with the means of study and illustration, and in making them more independent of patronage. Our national military and naval schools have the reputation of furnishing more thorough training and teaching than any college in the land, and their entire independence has much to do with this result. Medical scholarships are much needed, and prizes for dissections and dissertations promote a healthy activity, and it is certainly desirable that means should be supplied for these important objects. All medical men must feel a great interest in medical colleges, and a few whose fees exceed their immediate wants gladly contribute towards medical schools, libraries and hospitals. We wish that the liberal in the community were more impressed with the importance of a complete and thorough medical education, and thus were more ready to give and bequeath the funds for such an object. Something has lately been done in our community, and we trust that among the many objects presented, the cause of medical education will not be suffered to be forgotten.

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DRUG INSPECTION.—A special meeting of the Councillors of the Massachusetts Medical Society will be held at the Society's rooms, No. 12 Temple Place, on Friday, the 15th inst., at 11 o'clock, A.M., to consider the subject of a more thorough enforcement of the United States "Drug Law." We understand that the same subject is under consideration by the Massachusetts College of Pharmacy, who are disposed to act very efficiently in the case. In New York, the matter has been under consideration by several medical bodies, and the New York College of Pharmacy, and a memorial has been prepared, addressed to the President of the United States, and signed by the

presiding officers of the Medical Society of the State of New York, the New York County Medical Society, the Kings County Medical Society, the New York Academy of Medicine, and the New York College of Pharmacy, which closes with the following recommendations:—

1st. That the candidates be graduates of a regular medical college, or a college of pharmacy; and,

2d. The reference of all candidates to the Medical Boards of Examination of the Army or Navy, whose competency for such duty is well established, who shall report their decisions or selections to the appointing power through their respective departments. It will be remembered that these Boards meet for the examination of candidates for the medical corps of the Army and Navy every year, generally in March, and always in some of the large ports of entry.

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STATE LUNATIC HOSPITAL AT NORTHAMPTON.—From the Third Annual Report of the Superintendent of the Third State Hospital for the Insane, at Northampton, we learn that at the close of the last year there were in the Hospital 233 patients, of whom 98 were males, and 135 were females.

During the present year, 167 have been admitted, of whom 73 were males, and 94 were females. Fifty-five have been discharged, of whom 23 were males, and 32 were females. Twenty-seven have died, of whom 8 were males, and 19 were females, and 3 males have eloped, leaving 315 in the institution at the present date, of whom 137 are males, and 178 are females.

The whole number now remaining under treatment is greater, by 82, than at the close of the last year.

Twenty-seven patients have died during the year, the greatest number of deaths from any one cause being attributable to the gradual wearing away and final exhaustion of the vital powers in cases of chronic mania and dementia, of which we have so large a proportion.

Of the 55 patients discharged during the year, 33 had recovered, 18 were more or less improved, and in 4 there had been no improvement.

The admissions this year exceed those of the last by 74, while the number discharged is 3 less than last year.

There are now in the hospital 178 female patients, and the part of the building allotted to them is filled, and in some parts rather crowded. Yet the ample and well-ventilated dormitories and corridors prevent the usual bad effects of a crowd, and a remarkable degree of health is always enjoyed. The disproportion between the number of males and females existing from the opening of the institution, has constantly increased, and the excess in the number of females now reaches 41.

Of the cases admitted this year, over 60 per cent. have been suffering from the disease for more than a year, some for many years, and the greater part of them must be considered to have passed the period when treatment can be expected to restore them.

From the Report of the Trustees, we infer that the institution, under the management of Dr. Prince, is at present in a most efficient condition, and ranks second to none in the country.



PSEUDO-MEMBRANES AND THEIR CHEMICAL REACTIONS.—In a communication presented by M. OZANAM to the Académie des Sciences at the meeting held the 14th of January, he showed that the false membranes were not dissolved by pure water, though immersed in it for twenty-five days—that they were dissolved by the use of chlorine in from five to six hours, by bromine in one hour, by iodine in fifteen minutes, by chloride of iodine in five days, by chloride of bromine in from two to three hours, by sulphuric acid in a few minutes, by phosphoric acid they were dissolved imperfectly, by l'eau regale in one hour, by hydro-chloric acid they were only softened, by citric acid were imperfectly dissolved, by lemon juice were softened, potassium (au dixième) twenty-four hours, soda (au dixième) twelve hours, lime water (au dixième) twenty-four hours, by ammonia they were softened, by chlorate of potash they were dissolved in three to four days, by perchloride of iron the membranes were hardened without being disintegrated, by bichloride of mercury they were hardened.

Having indicated the nature and duration of the reactions produced on false membranes by the chlorides, the alkaline bromides and iodides—by the carbonates, borates and phosphates—by cod-liver oil, the mother waters of kelp, glycerine, chloroform and urea, the author adds:—

“Upon consulting the preceding results we may conclude that if it is desired to attack the membranous formations by solvents, the alkalis should be preferred to the acids; and, in the order of their importance, the mother waters (les eaux mères), ammonia, soda, bicarbonate of soda, urea, cyanuret of potassium, chloride of potassa, glycerine, lime water, potassa, chloride of sodium, bromide of potassium, and finally, carbonate of potassa, phosphate of soda, and chlorate of potash, so long extolled.

“If, on the contrary, the disintegrating agents are desired, great efficacy will be found in the use of the chloride of bromine, bromine, and chlorine—and in a less degree iodine, perchloride of iron, bichloride of mercury, and chromium—which harden the false membrane and detach it *en masse*, without breaking up its elements.” H. C.

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CASE OF TRIPLETS. *Messrs. Editors*,—On Sunday, the 10th of February, I was called to see a Mrs. B., aged 24 years, who had been married two years, and was for the first time *enceinte*. She told me that she had not been unwell for two and a half months, had no sickness or nausea, but that morning had a slight pain in her back and some appearance of the catamenia. From her appearance, I should have supposed that she was in the fifth month of pregnancy. I prescribed plumbi acet. gr. i., opii gr. ss., to be taken in vinegar and water, and to observe perfect quiet. On the 11th, I was called and found that the membranes had ruptured, but no pain followed, and but little flowing. As there was no cause for alarm, I left her, with directions to send for me whenever she should be in pain. On Sunday, the 17th, I was sent for in great haste, and on arriving found that the foetus had been expelled, and she was free from pain. I waited for one hour, and then gave ergot, five grains in powder. In about fifteen minutes her pains came on, and after two or three pretty severe ones, another foetus was expelled, and the pain ceased. I waited for thirty minutes, and gave five grains of ergot, which soon brought on pain,

causing the rupture of another bag of membranes, and immediately a third foetus appeared, followed by the placenta, with the three cords attached; the placenta being about two thirds of its usual size at the full time, and the last foetus being the largest, though in neither of them could I clearly distinguish the sex. The patient is now doing well.

Yours, &c.

JOSEPH S. LANE, M.D.

*Janesville, Wis., February 19th, 1861.*

HOW TO ENSURE A CONSTANT SUPPLY OF PURE VACCINE.—It will be seen, by the following communication, that a novel expedient has been suggested by the Health officer of Brooklyn, N. Y., in his Annual Report, by which the purest vaccine matter may hereafter be always at hand. This expedient consists in setting apart a cow, whose object shall be the perpetual production of vaccine! Although the credit of this suggestion is generously awarded to our own city, we feel constrained, in an equally generous spirit, to insist that our sister city should have the full benefit of the renown which must accompany the promulgation of this ingenious idea. It is a little surprising, that a brain so fertile as that of the Health Officer should not, for somewhat obvious reasons, have hit upon another animal nearly related to the aforesaid. The lordly beast is indeed less manageable, but has certainly far more endurance, and hence would bear the constant tapping, if not with more humble spirit, certainly with more patience. To be sure, the being continually waited upon, lancet in hand, might have an effect upon his majesty not unlike that produced by certain fiery colors; but habit might correct this natural irritability. At our next visit to Brooklyn, we shall look with no little interest upon this remarkable animal; and it will be a spectacle of no ordinary interest to see it, perhaps, bubbling at every pore with the pure article. Brooklyn must certainly hereafter become the great vaccine metropolis of the country—perhaps of the world.

*Messrs. Editors,*—I find in the Annual Report of the Health Officer of the city of Brooklyn, N. Y., for the year 1860, the following passage. The writer is speaking of the importance of vaccination, &c. "In order to relieve the minds of parents from any anxiety, in relation to the quality of the matter to be used upon such occasions, and also to meet the wants of the medical profession in this city in this particular, *I would recommend that a cow be set apart and kept at the grounds of the alms-house or elsewhere, for this especial purpose, from which fresh matter could always be obtained.*" "The authorities of Boston have, for several years, in this manner and with effect, supplied the profession in that vicinity."

My object in sending this is to inquire about *that cow* which is kept in Boston. I would like to know *where* it is kept, so that I may visit it when I am in your city again. I think it would also be interesting to the profession in general to know something of the said animal. I would propound a few questions, which I beg you will answer, or get the keeper of the cow to answer. I think it would be interesting to know the age of the cow; how many years she has been kept for that purpose; how often the matter is taken from her, and what is the average quantity obtained each month or year; also how the drain of matter affects the secretion of milk—whether she continues to have offspring, and if so, how are the offspring affected by this state of the mother—whether they are susceptible to the disease, and at what age—whether this matter can be obtained in perfection from a *calf*, and if so, whether Boston could supply them to other cities, &c.

You perceive, at once, that the subject is one of tremendous importance, and it seems to me that the profession in Boston have most wrongly hid their light under a bushel in not publishing a full account of this plan, which works so



well, and which the Health Officer of Brooklyn has now, some how, got hold of, and, at once, published to the world. Yours, respectfully, \* \*

MASSACHUSETTS MEDICAL COLLEGE.—At the Annual Commencement of the Harvard Medical School, on the 6th inst., the degree of M.D. was conferred upon the following gentlemen :—

GRADUATES.

George Jerome Arnold,  
John George Blake,  
Francis Henry Brown,  
Sidney Howard Carney,  
Charles Monro Carlton,  
John Edward Cobb,  
Benjamin Tower Crooker,  
Joseph Whitney Cushing,  
Edgar Everett Dean,  
Henry Claudius Dean,  
Frank Eli Dow,  
Theodore Willis Fisher,  
William Caldwell Flowers,  
Theodore Scott Floyd,  
William Edward Hayden,  
Isaac Hills Hazelton, Jr.,  
  
William Henry Weed Hinds,  
John Davis Jones, Jr.,  
  
Henry Allen Lamb,  
Jarvis King Mason,  
  
Alexander McDonald,  
Francis Le Baron Monroe,  
Ephraim Bell Muttart,  
Abial Ward Nelson,  
John Pond Ordway,  
Asa Marshall Paine,  
Norbert Provencher,  
  
William Edmond Rice,  
George Thompson Shipley,  
Joseph Crandall Skinner,  
Charles Carroll Street,  
James Francis Sullivan,  
Augustus Valentine Tourtelot,  
John Fletcher Stevenson,  
Warren Webster,  
Edward Andem Whiston,  
Sullivan Whitney,  
John Warren Willis,  
Theoron Woolverton,

THESES.

*Ventilation.*  
*Fractures.*  
*Hospitals.*  
*Death.*  
*Treatment of Acute Pneumonia.*  
*Yellow Fever.*  
*Post-Mortem Examinations.*  
*Strictures and Perineal Section.*  
*Etiology.*  
*Scarlatina.*  
*Phthisis Pulmonalis.*  
*Acute Rheumatism and its Complications.*  
*Scarlatina.*  
*Surgical Inflammation.*  
*Therapeutics of the Mind.*  
*Against the Theory of the Production of Phthisis by Masturbation.*  
*Pleurisy.*  
*Climatology of Providence, and the Modes of Life on Disease.*  
*Enteric Fever.*  
*Physiological and Pathological Action of the Mind.*  
*Idiocy.*  
*Insanity.*  
*Cholera Infantum.*  
*Chronic Laryngitis.*  
*Phthisis Pulmonalis.*  
*Phthisis Pulmonalis.*  
*L'Homme, considéré sous le rapport du Physique et du Moral.*  
*Anæmia and Chlorosis.*  
*Mental Surgery.*  
*Medical Man in Emergency.*  
*Signs and Symptoms of Pregnancy.*  
*The Blood.*  
*Bilious Remittent Fever.*  
*Biliary Calculi.*  
*Dislocations and Fractures.*  
*Anæsthetics.*  
*Functional Diseases of the Stomach.*  
*Sequences of Gonorrhœa.*  
*Transfusion of Blood.*

D. HUMPHREYS STORER, *Dean of the Medical Faculty.*

THE Homœopathic College of New York, says the *Medical Times*, recently held its commencement, on which occasion the President gave the following significant charge to the graduates. We need no other proof of the utter worthlessness of the system which these young men are now deemed qualified to practise :—

“You need not stick alone to Homœopathy ; if that will not cure, try Allopathy. If Allopathy fails, try Hydropathy ; and if you are not then successful, adopt Spiritualism or any other curative means that may be at hand.”

It is deeply humiliating to add that this Institution has a charter from the State, and by its diploma places its graduates upon the same legal footing as those of our best medical schools.

NEW YORK OPHTHALMIC SCHOOL.—The Annual Commencement of this institution was held on the 26th ult., in the Fourteenth-street Medical College, in the presence of a large number of students and medical men. Peter Cooper occupied the chair. Dr. Stephenson, the senior surgeon to the institution, made a few preliminary remarks in regard to the organization and success of the institution, and concluded by awarding testimonials to twenty-eight gentlemen, who composed the graduating class.

Dr. J. P. Garrish, one of the surgeons of the Hospital, delivered an excellent address to the students, and the Valedictory was spoken by Dr. Jas. F. Kiernan, of the graduating class.

### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MARCH 9th, 1861.

#### DEATHS.

	Males.	Females	Total
Deaths during the week, . . . . .	31	43	74
Average Mortality of the corresponding weeks of the ten years, 1850-1860,	36.9	39.6	76.5
Average corrected to increased population, . . . . .	..	..	85.3
Deaths of persons above 90, . . . . .	..	1	1

#### Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
14	2	3	4	0	1	0	0	2

#### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	29.640	Highest point of Thermometer, . . . . .	73°
Highest point of Barometer, . . . . .	30.620	Lowest point of Thermometer, . . . . .	9°
Lowest point of Barometer, . . . . .	29.450	General direction of Wind, . . . . .	W.N.W. & W.
Mean Temperature, . . . . .	34°.07	Am't of Rain (in inches) . . . . .	0.000

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 585.

	BAROMETER.					THERMOMETER.				SNOW & RAIN.		Mean Amount of Cloud. 0 to 10.
	7 A.M.	2 P.M.	9 P.M.	Mean Height.	Lowest Point.	7 A.M.	2 P.M.	9 P.M.	Mean Height.	Time.	Meas. sure.	
Monday, Feb. 25	29.50	29.34	29.43	29.423	29.08	27	41	36	46.2	0 hours, 30 m.	0.05	5.00
Tuesday, " 26,	29.50	29.50	29.51			29	52	42				
Wednesday, " 27,	29.59	29.60	29.62			40	59	47				
Thursday, " 28,	29.60	29.54	29.51			45	61	56				
Friday, March 1,	29.47	29.40	29.37			51	63	54				
Saturday, " 2,	29.22	29.10	29.03			51	58	48				
Sunday, " 3,	29.28	29.27	29.44			64	43	33				

REMARKS.—General direction of wind, W. and S.W. Ice moved on the Mississippi the 2d inst. at 10 o'clock, A.M. Thickness of ice on the Mississippi, 22 inches. Frost in the ground, 10 to 12 inches.

THIS number of the JOURNAL comprises an extra sheet, in order to furnish space for articles from correspondents which could not well be deferred; and the issue for next week will also be enlarged for the admission of Prof. Shattuck's Valedictory, the continuation of Dr. Ware's Lecture, &c.

BOOKS RECEIVED.—Epitome of Braithwaite's Retrospect, Six Parts. Charles T. Evans, New York.—Treatise on Human Physiology. By John C. Dalton, Jr., M.D. Second Edition. Blanchard & Lea, Philadelphia.—Case of Recurrent Anæsthesia of almost the entire Surface of the Body. By John W. Ogle, M.D., Assistant Physician to St. George's Hospital, London. (From the Author.)—Description of Cases communicated to the Pathological Society of London during the Session 1859-60. By J. W. Ogle, M.D., Assistant Physician to St. George's Hospital, London. (From the Author.)—Eighteenth Registration Report to the Legislature of Massachusetts, for the year ending Dec. 31, 1859.

DIED.—In this city, March 4th, Dr. William W. Jones, 53 years, 4 months.—March 9th, Dr. John Field, formerly of Athol, 41.—At Westhampton, 27th ult., Dr. William Hooker, 94.

DEATHS IN BOSTON for the weeking Saturday noon, March 9th, 74. Males, 31—Females, 43.—Accident, 2—anaemia, 1—apoplexy, 1—disease of the brain, 1—bronchitis, 3—cancer, 1—carbuncle, 1—consumption, 14—convulsions, 3—croup, 2—debility, 3—diphtheria, 2—dropsy, 1—dropsy of the brain, 5—epilepsy, 1—scarlet fever, 3—gastritis, 1—hæmorrhage (from funis), 1—infantile disease, 2—jaundice, 1—disease of the liver, 2—congestion of the lungs, 1—inflammation of the lungs, 4—old age, 2—paralysis, 2—puerperal disease, 1—sore throat, 1—smallpox, 1—unknown, 6—suppression of urine, 1—whooping cough, 1.

Under 5 years of age, 32—between 5 and 20 years, 0—between 20 and 40 years, 16—between 40 and 60 years, 13—above 60 years, 13. Born in the United States, 51—Ireland, 20—other places, 3.



THE  
BOSTON MEDICAL AND SURGICAL JOURNAL.

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VOL. LXIV. THURSDAY, MARCH 21, 1861.

No. 7.

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AN ADDRESS.

BY GEORGE C. SHATTUCK, M.D., HERSEY PROFESSOR OF THE THEORY AND PRACTICE OF PHYSIC.

[Delivered at the Annual Commencement of the Medical School of Harvard University, Wednesday, March 6th, 1861, and communicated for the Boston Medical and Surgical Journal.]

IN the year that has elapsed, since you last came to this College for the purpose of conferring degrees, much has been said and something has been done in this matter of *medical education*, some of the results of which are now before us. I will ask your permission, then, to make a few remarks upon those sayings and doings; to call attention briefly to the work done here, and the mode of doing it, before addressing myself to the task especially assigned to me at this time, that of giving exhortation and counsel to those who have just received from you their diplomas, and are going forth with the sanction of this ancient University.

It is probably known to all here present, that the American Medical Association, a body composed of delegates from the medical societies and colleges scattered throughout what has been, and, as we trust, will still be, known as the United States of America, has for a leading object the improvement of medical education. In the first volume of their Transactions, we have two long reports, one of a committee on preliminary education, the other of one on medical education, sixteen resolutions being appended to these two reports. Seven other reports are to be found in the subsequent volumes. The teachers of medicine were invited to meet in convention, and several schools sent delegates to Louisville in 1859, and to New Haven in 1860. A committee of conference with these conventions, made a report at the last meeting of the American Medical Association, in which eight resolutions were proposed to that body, seven of which, with some modifications, were adopted.

Now we should infer from this, that the medical profession is not quite satisfied with the present state of medical education, nor with the results as shown in the graduates of the schools. We must

admit that they have an interest in this matter, and that opinions expressed by them should be treated with all respect. The Medical Faculty of Harvard College think that they have not failed in attending to and considering the deliberations and resolutions of the representative bodies of the profession, and when they have not been able to act on their suggestions, they have properly communicated their views and assigned their reasons.

A few months ago, a retired member of the profession from our own immediate neighborhood, wishing to appropriate liberally from the proceeds of his professional labors to the cause of medical education, asked advice of the Massachusetts Medical Society, and a committee of that body was appointed, who conferred with that gentleman, and suggested some changes in the administration and regulations which might be adopted by the authorities of this school of medicine, in view of a liberal endowment appended to them. The Faculty, when requested, gave their opinion of the probable effect of the proposed new regulations, and offered their resignations to the authorities of the University, in order that they, personally, might not stand in the way of so important a benefaction. The proposed changes and modifications were duly considered by the Corporation, but it was not thought for the interest of the University to adopt them. One of them in particular, and an important one, could only have been proposed, as it seems to me, from overlooking the construction and arrangement of our school, in details brought before us to-day, and to these I would invite the attention of those before me.

But, first, we should do justice to the wisdom and generous spirit shown by the retired member of the profession in proposing to give so large a sum to the Corporation of Harvard College, for the endowment of its medical school. It is an example of the spirit of the oath of Hippocrates, which I would especially commend to you, gentlemen of the graduating class. I would remind you also, in this connection, of one whose name may not be familiar to you, of Dr. Caius, the President of the London College of Physicians, the Physician of King Edward VI., Queen Mary and Queen Elizabeth, who retired from court and from a lucrative practice, and founded the College at Cambridge, in England, the most celebrated in that University, at the present time, for its medical learning, spending the latter days of his life in this academic retreat, to which he gave the proceeds of his professional labors.

The seventh resolution of the committee of conference with the teacher's convention, adopted last year by the American Medical Association, was "an approval of all proper efforts by which the attention of persons of means and liberal dispositions, as well as of legislative bodies, shall be called to the importance of the endowment of medical colleges and professorships." Our excellent President, in his inaugural address, called attention to the endowments of the University, their great value, and the indebtedness of



students to them. At college commencements, the names of deceased benefactors have always been mentioned with honor. Our building, our museum, our library, and funds to keep them in good condition, are the results of the munificence of the State as well as of private individuals. A medical education is the most expensive of all professional educations, whilst medical students are, as a class, possessed of less means than others; are less able to provide themselves with what is needed for their education. With few exceptions, all in our country who devote time to teaching, could spend it with more pecuniary profit in the practice of their profession. He, then, who offers to supply means for better medical education, has well-founded claims on the gratitude of the community, and his views and suggestions are entitled to a respectful consideration, and we believe that such was accorded to them in the case just referred to.

The provision contemplated in the report of the committee of the Massachusetts Medical Society, on which I would now say a few words, was one for the establishment of a board of supervision, to be composed of prominent gentlemen from the community, whose official rank was a guarantee of the estimation in which they were held, with whom should be joined medical men of repute and experience. Those, however, who established this school of medicine, had not been unmindful of such a representation of the parties interested in the results of medical education. The Corporation of Harvard College is a small but a carefully selected body of gentlemen, whose accomplishments and qualifications have been proved in various posts of duty and responsibility. One of them is a Judge of the Supreme Court of Judicature of this Commonwealth; and another has but lately ceased to preside over the same court as its Chief Justice, after discharging the duties of that office with distinguished ability for a long time. Our Board of Overseers has amongst its members the Governor, Lieutenant Governor, President of the Senate, Speaker of the House of Representatives, the Secretary of the Board of Education. The medical profession is ably represented in both these boards. A large committee composed of medical men, appointed by the Overseers, visits the Medical College every year, receives reports and suggestions in writing from each professor, holds personal conference with them, and makes a full report to that board, which is printed, and distributed amongst those interested in medical education.

There was a conclusion arrived at by a hard-working member of the medical profession, under peculiar circumstances, it is true, but which I will refer to here; for certainly the founders of our medical school had not otherwise read the book of human nature, as evinced in the provisions established by them. A patient, in great pain and distress, from unnatural distension of one of the hollow viscera of the abdomen, sent for a medical man from a distance of many miles, on a very stormy night in winter. On horseback, through sleet and

through snow, with utmost diligence, the doctor got to the patient, and administered prompt and thorough relief. The question of compensation came up, as the medical man was preparing to go back. The patient knew well what he had suffered, and what his physician had done and endured to get to him, and the latter impulsively said in reply, give me what you think the service done for you is worth. From funds put into the sick man's hands for this purpose, the coin then known as a pistareen was selected and handed to the physician, who, turning it over and looking at it thoughtfully, expressed aloud the conclusion, "What a poor creature is man when left to himself!"

Now, Mr. President, the Medical Faculty of this University, charged with weighty cares and responsibilities, and realizing what the infirmities of human nature are, may congratulate themselves that the whole burden of medical education does not rest on them, but that direction, counsel and support have been amply provided for them. In this matter of conferring degrees, for which we are now come together, they have taught, and they have examined according to prescribed ways and usages. The Corporation and the Overseers confer the degrees. There are those who would take away one of these duties, that of examining for degrees, from those who teach, urging that they cannot be safely trusted with it. It is said that, for the sake of increasing the number of their students and their incomes, they are too careless and too easy in the discharge of this duty. And yet, it must be admitted, that those who do so are short-sighted, even in the matter of their own interest. A medical school is dependent for success on the good will of the profession and the community where it is established; and such negligence and faithlessness would lead to the loss of its reputation. It is not to be denied that medical students do not covet unnecessary labor, but at the same time they do prefer a diploma from a school which has a reputation in its graduates, and which is known to be careful in recommending candidates for degrees. The complaints and criticisms, to which I refer, are not so common here as elsewhere. These same questions have been discussed among us, as to whether there be not a better way of ascertaining the fitness of those who would enter the profession. Public examinations, such as are held in France and Germany, the presence of delegates from State medical societies, as is the practice in New Hampshire and Connecticut, have been proposed by some. My own observation warrants me in believing that there is much less desire of change, however, in this community than in others, where medical schools are not constituted as is ours. There are independent schools in our land, where the professors establish their own systems of instruction, fill their own vacancies, manage their own affairs, and have no responsibility to any other body. For one, Sir, I am very thankful that I am not connected with such a school, and rejoice that there are those set over me with the wisdom and experience to make rules



and regulations, and with the good sense and courtesy to appreciate all well-meant efforts to discharge duties, the bounds and directions of which have been wisely and carefully and plainly marked out. I am satisfied, from extensive observation in other communities, that the Medical Faculty of Harvard University have as large a share of the confidence, respect and good will of their medical brethren, as is possessed by any faculty in this land, and I attribute so desirable a result in some degree, at least, to the regulations just alluded to, by which the parties interested in medical education have a share in the administration of affairs, as well as an opportunity to know what is being done, and how these affairs are managed. I do not think, Sir, that the complaints made of medical schools, of their insufficient teaching, of their careless examination for degrees, would have been so likely to have been made, had the legislatures in other States provided as wisely and amply in boards of supervision, as has been done in our own case. If medical education is defective, are those legislatures without responsibility for such a result, who give charters indiscriminately to all applicants, and provide no means of subsequent supervision and control?

In the last Report made to the American Medical Association, much is said of the superiority of the medical schools of Europe, of requirements for a good preliminary education more thorough and better enforced, of a curriculum of study extending through four, five or six years, and occupying ten months of each year, of a much larger corps of professors presiding over many more branches, of more frequent and longer examinations for degrees. But, who established all this, who provides for it, and who pays for it? The Government. And when there are many State legislatures in our land doing nothing for medical education, with the exception of giving acts of incorporation to any associating themselves avowedly for this purpose, and allowing them to compete for students with an equal legislative sanction, are medical teachers to be exclusively blamed because ignorant, ungentlemanly and unprincipled men are admitted within the ranks of the medical profession? When the law of the land makes no distinction between the various practitioners of the art of healing, but allows to each the same facilities for the collection of pecuniary compensation, makes no effort to repress quackery or to restrain the sale of nostrums, are medical teachers alone responsible for deficiencies in mental and moral qualities, or in the preliminary education of those received as members of their schools?

If, in our own State, we might wish that the legislature did less to encourage female and eclectic colleges, we cannot reproach it with not providing ample means of supervising the medical school of Harvard College; and whilst the Medical Faculty may congratulate itself on harmonious and friendly relations with the supervisory bodies already provided, resulting in intelligent coöperation,

they may be allowed to express such a degree of satisfaction with the present arrangements, that they do not see the need of making any important changes. It is our belief, that those who have managed the affairs of this medical school, have never been insensible to the importance of keeping its standard of education on a level with that of the best schools in the country. You will find, for instance, among the resolutions adopted by the American Medical Association, one that insists on requisites for preliminary education, others on a course of study continued during three years, on attendance upon two courses of lectures, with a proper interval between each, on taking pains to ascertain that these requisitions have been complied with by those seeking degrees; and, in all these respects, we believe that the letter and the spirit of these regulations have always been and are conformed to in this school, whilst we know, and our students know, that there are schools in which all these provisions are disregarded. Our winter lecture terms are not so long as those of the schools in the great cities of New York and Philadelphia; but we have a summer term extending through a period of six months, in which there are daily examinations, recitations, clinical teachings. The admirable lectures of the University in other departments, on Comparative Anatomy, Zoölogy, Botany, Acoustics, and Optics, are free to our students, who are encouraged to attend them. We believe it to be a great advantage to the medical school to be a part of a University, and that our students are the better for the means of culture thus placed within their reach. While the advantages peculiar to a city, in hospitals and dispensaries, are made available; students are offered facilities for a practical knowledge of chemistry by working themselves in the laboratory, under the supervision of the professor of chemistry. And in our teaching at that season, we have the advantage of the assistance of those connected with hospitals and dispensaries, as well as of the younger and active members of the profession, who are willing to devote their leisure to such study as is emphatically necessary to teachers.

In these and in other ways, may it please your Excellency, and you, Mr. President, we have endeavored to instruct our students, and our knowledge of those presented to you for degrees is not wholly derived from the comparatively short time spent with them in the formal examination. We are free to confess, that whilst we believe them to be furnished according to the prescribed standard in our land, we would gladly see that standard raised, and we willingly coöperate in all proper and feasible means of raising it. And you, gentlemen, who have just received your degrees, although, hitherto, you may have been quite satisfied with what has been required of you, will soon be convinced that, if the medical profession is to be true to the interests confided to it, the culture bestowed on those entering its ranks cannot be too careful, the preparation too thorough. You are now graduates of this University, but you are not thus admitted to a *monopoly*. You will



be obliged to contend with active, zealous and unscrupulous pretenders, who will condescend to arts and avail themselves of means of getting public favor and sympathy which you can never employ. You are coming forward at a time when charlatans and nostrum-venders are much in favor and in vogue, and how shall you compete with them? You have an advantage in thus being admitted to membership in a University, in being associated with the scientific and the learned. Sources of knowledge, and ways to them, have been shown to you as under-graduates. You must still be students, you must continue to walk in the paths in which your feet have been planted. One who did much for education in his own day, who founded and endowed a school and a college, from each of which have issued yearly for four centuries, a band of well-educated young men, many of them winning their way to high posts of dignity and usefulness, gave as a motto to his school: "Manners maketh man." Scientific and literary culture is not all that you need. It is, indeed, very important that you train your intellectual faculties, that you store well your minds with knowledge; but if you would exercise those faculties, if you would use that knowledge in active professional life, you must see to it, that in your intercourse with your fellow men you be gentle and courteous, kindly and well disposed. You are to be in close communion, not only with the good, the wise and the strong, but with the weak, the nervous, the fretful, the angry and impatient, and you must be able to deal with all these; you must know how to make yourselves all things to all men. The poor and the ignorant need your services, and are entitled to them; you must exercise patience and forbearance, if you would benefit them. You must be largely conversant with the sins and infirmities of your fellow men, but you must not be contaminated by them yourselves. You must be well read in the book of human nature, if you would make your abstract science of true service to your patient.

The graduates of the European schools, who have been trained by the State during their four, five, or six years, and then go forth into the community with a seal and stamp of due preparation, commanding the confidence of those needing their services, and who are in a manner obliged to avail themselves of them, may presume on what has been done for them, and be negligent of improving duly all opportunities of self-discipline and self-improvement; but you cannot afford to rest thus on your oars. Hard work, self-denial, will be forced upon you by the stimulus of a fierce competition. Leisure, repose, retirement, are but too little accorded in our day to those who win the confidence of the community in the practice of their profession. And in view of what has been said of a low general standard of preparation, and as an offset to it, I would cite from the report of the committee of conference of the American Medical Association, the concluding sentence: "Premising, that while it must be admitted that the number of imperfectly educated practi-

tioners is large, it must not, by any means, be forgotten that our medical colleges are every year sending out graduates who are proving their own diligence and fidelity, and showing, by the successful practice of their profession, that they have availed themselves of the greatly increased facilities and advantages afforded them, and that their number was never greater than at present."

A suggestion has been made, whether, in this country, we are not losing sight of one of the objects, and an important one, set forth in the establishment of colleges. Men were collected to live together, to sleep under the same roof, to eat at the same table, to pursue the same objects together, and thus to learn to adapt themselves to each other, and each to repress those inclinations and habits which are likely to interfere with the comfort and well-being of others. One object of a college is to beat down selfishness, to cultivate amenity and courtesy, to teach how to submit, obey and conform. Now, no one can be successful in professional life, who cannot forego his own inclinations, and adapt his ways and language to those whom he would serve. The member of a large family, who has been a good son and brother, has had a training which fits him to discharge his duties as a professional man; a member of a college, who has been trained to live and work harmoniously with those of different tastes and natural inclinations, has a great advantage when he first comes in contact with clients or patients. Mutual understanding, coöperation, are much easier for such a one, and the idols of the den of which Lord Bacon speaks, his own fancies, notions, are much less likely to get a sway over him. The Colleges of Oxford and Cambridge, in our mother country, Lincoln's Inn, Gray's Inn, and the Temple, in London, have been collecting men together for hundreds of years, giving them facilities for study, but also disciplining, training them in a daily intercourse as fellow members of a one body. At St. Bartholomew's Hospital, in London, there is such a college, and you, gentlemen of the graduating class, who have been living in the hospital, know something of the advantages of such an intercourse with each other and with patients as you have there enjoyed. For those of you who have spent only a winter with us, we cannot do as much in this way of personal intercourse as we gladly would. The clinical conference, however, which has been held once a week, has had one amongst other objects, that of making closer your relations with each other and with your instructors. Our summer system of instruction, in which recitations occupy so large a space, does something in the same direction. Still we must admit a great deficiency in professional training in these respects. You all will have much to learn when you come into communication with your patients and with your professional brethren, as to the establishment and maintenance of proper relations. The diploma you have just received introduces you; you must be able to prove to your brethren and to your patients, that you are worthy of their esteem and their confidence. To become



members of a University like Harvard, is a most important step in your career. It opens the way for the successful exercise of your faculties, for the proper display of your knowledge. If you have formed habits of study, if you have made progress in self-knowledge, self-discipline, and self-control, you will find great use for all such accomplishments, and you will be able to acquire more. You come forward at a time when, politically, conciliation and amenity are much wanted, and public men are sadly deficient in them. The recognition of lawful authority, the clear understanding of each other's rights and duties, do not prevail in this our day and generation. And, though our calling leads to private life, though the hospital and the sick chamber are the scene of our labors, the spirit of conciliation and compromise are wanted there. Covetousness, pride, self-love and self-will are enemies against which we physicians must carry on a warfare within ourselves. Van Helmont, who has left such full accounts of his struggles and labors on his road to professional eminence, tells us that he lived not without daily self-examination.

“O wad some power the giftie gie us  
To see oursel's as ithers see us!”

was the prayer of one who had experienced the humiliation of defeat and subjection to his own appetites. Yes, gentlemen, we may be thankful in this troubled time, that our duties do not call us away from scenes of retirement, from opportunities of self-improvement. Let us all use our advantages rightly. Let us try to recognize the true battle-ground, and devote our energies to the warfare to which we are summoned. We are associated together in a profession which exists in all civilized countries, which has survived revolutions that have destroyed wide-spread empires. Yet, if we would do our duties as members of that profession, we must see to it, each of us as an individual, that we are making a conquest of ourselves, that we are bringing into subjection all sinful passions, appetites, desires, and inclinations. You, as individuals, gentlemen, have differences of character, of intellect, of position, of attainment. How shall each employ his talents in the cause to which he is pledged? How shall each guard against his own besetting sin or infirmity?

I have called your attention, with as much detail as was possible, to the history of our profession, to the lives and fortunes of its distinguished members. These all are full of interest to us, who are called upon to contend with difficulties which they struggled against. Amongst them all, no one was more successful than he whose monument was built by the city in which he had lived and labored, and whereon was inscribed the sentence, “*Salutifero Bœrhavii Genio Sacrum.*” I have already said enough of his vast erudition, his persuasive eloquence, of his success as a physician, an author and a teacher. He was unwearied in his labors, full of business, and occupation, but we are told of him that he always reserved to

himself the first hour of his morning, to be spent in the study of heavenly things. He who would conduct a successful voyage over the seas and oceans of our physical world, studies diligently his charts and keeps a bright look-out for shoals and rocks and quicksands; but he does not forget his observation of the heavenly bodies, nor feel safe until he has thus found out his position and his bearings. And we cannot expect to conduct successfully our voyage of life, however diligent we may be in our studies of earthly things, if we do not look above and out of ourselves from time to time, and bring our thoughts and our actions to the test of a *Divine Rule*. As medical men we must be thoroughly conversant with the weaknesses and infirmities of human nature. We must realize what the Scripture tells us, that "The human heart is deceitful above all things and desperately wicked." We must know well the truth of that other saying, that "He who trusts in his own heart is a fool." Should we not, then, strive to lay hold on something stronger, higher, holier than ourselves? In the step which you have just taken, Divine assistance and blessing have been invoked by the preacher of the University. As, in college daily life, there are prayers and devotions prescribed by their founders, to promote the daily well-doing of the members, degrees have their religious elements and bearings. They confer privileges to be used for the benefit of others; but there has always been a tendency to overlook the duties and obligations. Selfishness is a besetting sin of our nature, against which, at all times and under all circumstances, we must be on our guard.

The University would remind us that our own true welfare is best promoted by a regard to our duties to God and our duties to our neighbor; that the fear of the Lord is the beginning of wisdom. We begin life with high aspirations for all that is pure, lovely and of good report; but these visions of the morning vanish as childish things are put away, and we assume the duties and responsibilities of the full-grown man. There are many of you, gentlemen, who are no novices in life, though you are but now entering into the medical profession, and who know full well, by sad experience, the meaning of the apostle as he tells of a law in his members warring against the law of his mind. I would wish you all, gentlemen, to recognize what a noble profession is yours, what scope it gives for the development of your intellectual powers, how it can satisfy the most burning thirst for knowledge. I would have you realize what an art you are called upon to practise, how it calls out your sympathies, your affections, how it gives play to all true instincts of kindness and good feeling. I would not conceal from you the trials and disappointments, the difficulties and uncertainties, which will beset your path. I have spoken to you of two schools in our profession, akin to two modes of viewing truth in theology. There are those who tell you that nature in disease is a steady tendency towards death, which the physician must counteract and beat back by ac-



tive and powerful treatment. There are those who say that in disease nature is healing, that its struggle is for life, for restoration, with which we must be especially careful never to interfere. I have tried to make you see the truth in the views of both these parties, the danger of obeying exclusively the precepts of either. And in these dealings with ourselves, we may not deny that there are instincts and impulses towards the good which are to be cherished, and yet also to be trained and brought into subjection. The experience of St. Paul, "the good that I would I do not, but the evil which I would not that I do," has been that of all sincere laborers in this field of self-improvement from his time to our own. The great prizes of life—wealth, fame, influence, friends—are strong incentives to diligence, but they certainly will not fall to the lot of all of you, they may not be attained by any of you. The medical man often toils on in poverty and obscurity, known only to his immediate neighbors. But wherever your path may lie, however narrow your field of labor, however great your infirmities, the plaudit and reward of the faithful servant may be yours. Sir Walter Raleigh, in his history of the world, surveying the baneful effect of the inordinate desires and passions of our race, apostrophizes Death as eloquent, just and mighty, who can persuade those whom none could advise, as alone able to make a man know himself, proving the sick man a naked beggar, with interest in nothing but the gravel that fills his mouth, holding the glass before the eyes of the most beautiful that they see and acknowledge their own deformity and rottenness." From watching so often the approach, from looking so often at the work of this grim monarch, are we not in danger of neglecting such teachings?

And now, gentlemen, in taking leave of you, and wishing you God speed as you enter on a new field of labor, can I set before you any higher incentive to diligence and fidelity than is contained in the old motto of our University — *Christo et Ecclesie*. Here is a watch-word which has animated many a good scholar of the cross in a life-long struggle with sin and infirmity, who now rests from his labors while his works do follow him. These works of conquest over ourselves, of charity to our neighbors, of piety towards God, we, each one of us, may be doing from day to day. Of each one of us, as in our turn we yield to that stern monitor who takes us from this our scene of probation, naked as we came into it, it *may* be said,

"Lord of himself though not of lands,  
And having nothing, yet hath all."

## DR. WARE'S LECTURES ON GENERAL THERAPEUTICS.

[Communicated for the Boston Medical and Surgical Journal.]

## LECTURE III.—(Continued from page 130.)

IN considering the treatment of diseases, we shall be often obliged to refer to the distinctions of acute and chronic, as requiring certain differences in their management. Whilst the general principles of treatment are of universal application, the details of this application will vary according to many circumstances, and among these circumstances the distinction to which I refer is an important one, and it will be proper to define it. The most obvious and simple difference between them is that of time; acute diseases are short, and chronic ones long. This is not unfrequently the only characteristic recognized, and it has even been proposed to fix a certain number of days or weeks, beyond which, if a case be prolonged, it is to be denominated chronic. But a true distinction is rather to be sought in the character of the processes of disease and the laws of its progress. Acute diseases are not only short, as compared with chronic, but they are more definite in their course. Their processes are rapid and steadily progressive. They have a distinct beginning, middle and end, and during these periods there is a succession of changes, following one another more or less rapidly, so that the condition of the patient in each stage is notably different from what it is in the others. Chronic diseases are not only longer, but they do not present the same definiteness of course, nor the same regular progression. They are less steady in the succession of events. They are prone to remain stationary in some particular condition, neither going backward nor forward—to retrace their steps—fall back into a preceding condition, and go over the ground again. Acute diseases may terminate in chronic, as bronchitis or diarrhœa, but they are then so considered, not simply because they are prolonged, but because at the same time they have undergone a change of character. In the midst of a chronic disease an acute affection of the same organ may arise, going through its course and subsiding, and leaving things as they were before—differing from the chronic mainly in the character and rate of its processes. This happens in chronic rheumatism, diarrhœa, pleurisy, phthisis and many others.

The difference between acute and chronic disease may be still further illustrated by referring to what takes place in that very peculiar and obscure affection, intermittent fever. The name itself implies that it is regarded as acute in its character, and in a certain sense it is so. But it seems really to be essentially a chronic disease, manifesting itself, however, at first, by a succession of acute attacks, each of which is complete in itself. Each of these may be regarded as an effort, temporarily successful, to throw off that chronic condition in which the malady actually consists. Quinine and other remedies may succeed in directly removing this



condition, and a cessation of the acute attacks follows. But if not thus removed, the tendencies of the chronic element of the case are finally manifested in other ways, and eventuate in distinct affections of various organs, as the glandular, the digestive, the nervous. The true character of intermittent is rather to be learned from the chronic results of its development than from the acute intermittent attacks; but its nature is as yet unknown.

This singular combination of acute and chronic phenomena in the same case, bears no inconsiderable resemblance to those paroxysms of hectic fever occurring so distinctly and regularly in some other chronic diseases, especially in pulmonary consumption. Their perfect distinctness and regularity are indeed rare, but occasionally they are as well marked as in intermittent, and differ chiefly in the fact that they are connected with some known pathological change. Before, however, physicians were in possession of our present means of physical diagnosis, it was not a very uncommon occurrence, that, when no certain signs of tubercles had presented themselves, the paroxysms of fever, in the early stage of phthisis, were confounded with a somewhat imperfect attack of intermittent.

The apparently healthy state of the system in which the paroxysms occur, and which intervenes between them—and yet in the midst of which we know a morbid condition lies latent—is not unlike that which exists between the application of the cause of many diseases and their appearance. In smallpox or measles, for example, there is a considerable period during which the system appears in perfect health, when it is yet certain that an element of disease is present, which is presently to pass into a state of great activity. In these cases a single acute attack is either successful in eliminating this element, whatever it is, or else it is unsuccessful and the patient dies. In rare instances, it also happens, with regard to intermittent, that a single acute attack terminates the disease, sometimes by recovery and sometimes by death. How frequently the succession of paroxysms which usually takes place would ultimately succeed in curing the disease, without its chronic character becoming evident by what are looked upon as secondary or consequent affections, it is difficult to judge, because the sufferings of the patient generally lead him to have recourse to those known means which are so certain to remedy, not the acute attacks directly, but that chronic condition from which they proceed.

Another general difference between acute and chronic diseases is in the extent to which the same amount of absolute change in the structure of an organ interferes with its function, and in the manner in which it produces secondary effects upon the system. Thus, so far as the simple alteration in the structure of the parts is concerned, the function of the heart might go on as well in pericarditis as in hypertrophy—of the lungs, in pneumonia as in phthisis—of the abdominal viscera, in peritonitis as in ascites. Yet in the first-named cases death may occur after a very short interval,

whilst, in the latter, life may be prolonged to a very considerable period. Then, too, the same amount of organic change which in acute disease produces extensive general sympathy and great disturbance in the circulation, the animal heat, the digestion and the secretions, in chronic diseases will sometimes scarcely interfere with them at all. This is partly owing to the consideration that the system has a certain power of accommodating itself to changes that take place slowly, as the functions of the brain are suspended by a sudden effusion of blood producing much less compression from its quantity, than a tumor which has been gradually formed, and yet has produced no symptom. But the difference partly also depends upon that difference in the character of the processes which has been pointed out.

These remarks serve to illustrate the general points of distinction between acute and chronic diseases. It must, notwithstanding, be admitted that the distinction is rather general than specific, and although it is perfectly clear as to many cases, it is not so as to others, especially when the one passes into the other, as in pleurisy, bronchitis and diarrhoea. For practical purposes, however, the preceding views will probably be found sufficient.

In determining the treatment of acute diseases, we are to bear always in mind, that they are for the most part self-limited—that they are going through a definite progress—and that, as the state of things in which they consist is constantly changing, so will the symptoms and the state of the system with which they are connected be constantly changing also. It necessarily follows that the precise purpose of treatment will not be at all times the same, but must vary in accordance with the changes of disease. In their relation to therapeutics, we may consider well-marked acute diseases as presenting four pretty distinct stages, in each of which the objects to the accomplishment of which the treatment is to be directed are very different. Thus, if called to a patient with pneumonia, it is not sufficient to decide that this is the disease under which he labors, in order to regulate its treatment. It is equally necessary to know in what stage it is, for the mode of management that would be advantageous, or at least safe, in one stage, might prove detrimental in another.

1. The first is the forming stage. It is that in which the disease begins, is developed and assumes its distinctive characteristics. This is done rapidly or at once in some cases, slowly and gradually in others. Consequently it is not of any definite length, but is longer in some instances than in others where the disease is the same. It varies also very much in intensity, and in the violence of its symptoms. This stage is often a good deal alike in diseases which are different. This is because the secondary or constitutional symptoms often present themselves before the primary or local, and are thus prominent while the others remain latent. The former class, such as chills, fever, headache, thirst,



heat and dryness of skin, pains in the back and limbs, loss of appetite, and changes in the secretions, the state of the bowels, the pulse and respiration, are very much alike in all acute cases, are predominant sources of suffering to the patient and of observation to the physician. Hence a diagnosis cannot always be made in this stage, the special symptoms by which it is to be made being masked or shrouded by the general ones, and not displaying themselves till a more advanced period. Some cases of pneumonia afford a good illustration of this, where the ordinary rational signs are at best obscure, the physical are muffled and uncertain, so that the attention is not directed with confidence upon the seat of disease, till a few genuine pneumonic sputa place us at once upon the right track. This first stage is often regarded as one of congestion. Death seldom takes place in its course. In a few rare instances, however, where the attack is very violent and the local affection of great severity and rapidity of progress, the resistance of nature is overborne at the very commencement, and life is destroyed before there is time for the establishment of those re-actionary processes on which recovery depends.

2. The second stage is that in which the disease is fully formed, and the processes in which it consists thoroughly established. The organ and the system are under its full influence. Its characteristic symptoms are completely developed, its diagnosis capable of being determined, and the degree of severity and amount of danger of being satisfactorily appreciated. Death sometimes occurs in this stage in cases of unusual violence, but commonly, though indications of a final fatal termination are often to be perceived, the event itself does not take place till the next.

3. The beginning of the third stage is indicated by a subsidence of the intensity and activity of the processes and symptoms—a species of collapse. But though there is less violence and often less suffering, there is not always less actual severity or less danger. In fact, though there is this sort of change in the character of the disease, the condition and prospects of the patient in this stage are very far from being uniform. The collapse is occasionally so considerable that it is the precursor of speedy dissolution, and this even in cases where its first effect has been to produce a relief of some of the prominent and alarming symptoms. Thus, in peritonitis, after severe suffering, this will be much diminished, the patient become comparatively quiet and easy, so as to give hope to an inexperienced bystander. But the failure of the pulse, the shrinking of the countenance, the feeble capillary action, and the increasing coldness of the skin, do not permit the physician to indulge it. Corresponding phenomena, though less marked, are observed in dysentery; and, in inflammations within the cranium, this condition explains that marked period of relief accompanied by a partial suspension of the delirium and a clearing up of the mental faculties that are occasionally observed not long before

death. In cases not succumbing in this way—and these constitute a vast majority—their further progress presents certain well-marked differences, according as they are moderate or severe. In moderate cases, although the necessary processes of disease are maintained, they go on mildly, they disturb the system but little, and are accompanied by but little suffering. Indeed, in those that are very slight, convalescence may be almost said to begin from this period. In severe cases, although there is a sort of pause or lull in the violence and suffering of the disease, the relief is only apparent or very transient—there is as much real intensity, though it is less obvious, and a change in the kind of suffering rather than in the amount. The necessary processes must go on in their own way, and the necessary termination be reached in death or recovery, according to the ability of the system to maintain the contest. This view explains the fact so commonly noticed, that in most very severe cases there comes a period in which there seems to be a promise that the disease is giving way. There is a distinct alleviation for a longer or shorter time, and then the patient again becomes very ill. The prominent and formidable symptoms of one stage have subsided, and those of the next have not yet manifested themselves.

Illustrative examples of this change of character are found in most acute diseases, but in hardly any are they so obvious as in scarlatina, where, at the close of the febrile or eruptive stage, there is so often a delusive calm of a few hours or days, followed by the development of secondary affections of the throat, nares, and sometimes other parts, upon which supervenes a secondary fever and occasionally a secondary eruption. In all acute diseases, however, something of the kind is observable. That there is really a new character in the work going on, seems to be indicated by the fact that in inflammatory cases an access of chills often takes place at the commencement of suppuration—a phenomenon which so often accompanies the advent of new elements in a case, and is also apt to precede the commencement of any new event in the system, sometimes even those of health, as lactation and the catamenia. We know so little positively of the ultimate nature of the processes of any disease, that it is useless to conjecture what is the real vital character of this change; but I trust I have not overstated its reality and the importance of its recognition in a therapeutic point of view.

4. The fourth stage is that of convalescence, in which actual progressive disease has ceased. But convalescence is not health. How speedy and how complete the return to a state of health may be, depends upon a great variety of circumstances. Convalescence may be rendered imperfect and protracted in many ways:—by the impaired condition of some organ whose activity is necessary to restoration—by the ravages committed upon the texture and organization of the part affected—by the general ex-



haustion of vital power from the disease itself or by the remedies which have been employed. Organs may have been left in a condition from which they can only slowly and gradually recover by the reparative process. Thus in typhoid, there may be left extensive ulcerations of the ilium requiring to be healed; in pleurisy, serum to be absorbed and lymph to be organized; in inflammation of the lungs, extensive purulent infiltration to be removed and the texture of the part restored to its capacity for respiration. A patient may even die when truly convalescent. As in typhoid, after he has actually ceased to be under the proper dominion of the disease, perforation may take place through one of the unhealed ulcers of the intestine, or fatal hæmorrhage may occur from it. Or the texture of the heart or the brain may be left softened by the effects of the malady, and the patient die suddenly from syncope or apoplexy.

It is seldom that the transition from one of these stages to another is so distinct as this statement might seem to imply. The line cannot usually be exactly drawn between them. They pass gradually into each other, and it may be only after some time that the change which has taken place is fully recognized. Yet the difference of condition in the several stages is a real one, and it is one of no little importance in relation to the views by which the treatment is to be regarded—the kind of treatment employed—and the degree of effect we may hope to produce.

Thus it is for the most part in the first, the forming stage, that we can entertain hopes of decidedly mitigating the severity of the disease, or of diminishing its duration. To how great an extent this may be done, we cannot, with our present knowledge, determine; but we have reason to believe that so far as it can be done at all, this is the time to do it. The remedies principally relied on with this view are of a depleting and reducing character, and they are well borne, at least so far as their immediate effect is concerned, and they often give great relief, so far as prominent and distressing symptoms are concerned. The opinion is very generally still entertained that disease may be both shortened and rendered milder in its course, as well as its symptoms relieved, by such means; and it seems probable that this is the case, though less frequently than was formerly supposed.

In the second stage there is much less probability of even relief from the same class of measures. They are not so well borne as to their immediate effects, and are more likely to impair the forces of the system upon which the future favorable progress of the disease depends. The appropriate measures of this stage are those which mitigate suffering of all kinds, check symptoms of an exhausting character, and remove sources of irritation, whether of body or mind. In these two stages the demand and the necessity for any nourishment except of a watery kind is small, and there is no advantage, but sometimes injury, from forcing any

other. The waste of the system appears to be absolutely less than during health, and accordingly, when subsidence takes place favorably at the close of it, a patient will exhibit more strength and less emaciation, than would occur in a well man under an enforced abstinence of the same duration. Patients are more exhausted by want of sleep than by want of solid food, and its promotion is therefore an important measure in the treatment. The exact applicability of these remarks must of course be modified according to the progress of the case in this stage. The use of means of interference, especially of a depressing character, is safest at its beginning and more objectionable as it advances and passes into the third.

In the third stage the state of things is entirely altered, and with it the purposes of treatment. Any modification of the character or severity of the case is out of the question. Disease has done its mischief, and reliance is now to be placed upon conducting the patient safely through those processes by which nature endeavors to repair that mischief. In order to this, not only are we to continue to counteract all causes of exhaustion, but to employ all possible means of reinforcing the powers of the system. Evacuating and perturbing remedies are rarely admissible; our chief business is, as far as it is practicable, to regulate the performance of the several functions, so as to husband the strength and maintain the nutrition. The waste appears to be increased in this stage, but the capacity of appropriating nourishment is also increased. The patient, consequently, has less desire for mere aqueous liquids, and if not a desire for, at least a greater tolerance of those which are substantial, and even sometimes for solids themselves. This is the stage in which the evil consequences of harsh and reducing measures in the earlier periods, not perceived at the time, may become manifest; and it is in this period mainly that stimulants are beneficial. The preceding stages are usually more definite in their character and duration than this, and the character and duration of this depend upon their severity and the amount of mischief done. Where these have been considerable, the third stage may be very much prolonged.

In the stage of convalescence, the call for all proper medical interference has ceased, and except in abnormal cases, there is only required a certain watchfulness over the progress of recovery and a guard against the occurrence of secondary ailments.

To one acquainted with the phenomena and history of acute diseases, it can be hardly necessary to remark that a statement of this sort can only be received in the most general way; that the principles of treatment, as applied to the different stages, will require frequent modification; and that descriptions of this kind only hold exactly true as applied to the more severe and well-marked cases.

It will not be necessary, at the present time, to enter into



a similar account of the considerations that are to govern us in the treatment of chronic diseases. Though recovery from them depends upon the fundamental physiological principles formerly enforced, the character of their processes, their limits, the laws of their progress and their relation to the general system, as already seen, are so different from those of acute diseases, and so incapable of being summarily comprised in a single statement, that it will be more instructive to defer remarks on their treatment, and to connect it with a future account of the administration of particular remedies.

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#### RUPTURE OF THE UTERUS DURING LABOR.

[Read before the Norfolk District Medical Society, January, 1861, and communicated for the Boston Medical and Surgical Journal.]

By J. H. WARREN, M.D., DORCHESTER.

MRS. COLLEY, aged about 40 years, Irish, of sanguine temperament, was attacked, in her second labor, at 2, A.M., Dec. 7th, 1860, with very severe pains, which continued until the 9th, when I was called very early in the morning. Upon inquiry, I found that the rupture of the membranes had taken place soon after the commencement of the labor pains. The quantity of liquor amnii was very large, judging by the amount upon the bed clothing and floor. Upon examination, I found a natural head presentation. About 10, A.M., as the pains diminished and the patient was inclined to doze, I left her to make other calls. At 3, P.M., I again visited her, and found her in very severe pain, and was told that she vomited just before I came in. The pains continued to increase in severity up to 6, P.M., without any advancement of the child, and on the access of a very violent pain, accompanied with vomiting, she said she felt something "give way." The pains greatly diminished, and gradually ceased; but the vomiting continued until she began to doze again. I now desired a consultation, when my friend Dr. Cushing was called. We decided to turn and deliver by the feet, which was readily done. Owing to a malformation of the pelvis, we had recourse to craniotomy, and delivery was accomplished, but not until the size of the head was diminished to that of the fist.

The antero-posterior diameter of the pelvis was  $2\frac{1}{2}$  inches; lateral transverse,  $3\frac{3}{4}$  inches. This malformation of the pelvis was still further augmented by the linea ileo-pectinea in traversing the pubes forming a very sharp prominence. After delivery, the patient seemed much exhausted, with nausea and vomiting of a substance like dark coffee-grounds. To produce uterine contraction, the hand was introduced, and a rent was found sufficient to allow the passage of the hand through the opening, so that the fingers were very easily felt through the abdominal parietes. The

rupture was in the anterior portion of the uterine neck and os, and rather obliquely upon the left side.

*Treatment.*—Sol. sulph. morphia was ordered to be taken freely. When we left the patient, the pulse was about 50 per minute, with much exhaustion and cold extremities, and little hopes were entertained of her recovery.

Dec. 10th.—I found the pulse 70; the countenance had a cadaverous expression. The abdomen was as large as before the delivery. She continued to vomit a dark fluid. The morphia was continued, and the following external application was made to the bowels: *R.* Tr. opii,  $\zeta$  ij.; tr. saponis c.,  $\zeta$  i.; ol. terebinth.,  $\zeta$  ij.; ol. camphorat.,  $\zeta$  i.; aqua Cologni,  $\zeta$  iv. M.

11th.—Countenance much flushed; pulse 98. Acute metritis has set in, with its customary amount of fever. A hard mass, giving a gelatinous impression to the hand, as of coagulated blood, was felt in the epigastric region. Vomiting of the same dark fluid, intermixed with purulent-looking bodies.

12th.—She still has pain in uterus and abdomen; pulse 110, thread-like, or the peculiar pulse which generally accompanies peritonitis. Vomiting continues. The bowels move freely—the evacuations of a dark bilious character.

13th.—Pulse 90; fever and inflammation somewhat abated in severity. Same treatment continued. Has vomited twice since my visit yesterday.

14th.—Pulse 88, more regular; tongue still coated with a light brown coat. Ordered castor oil, one ounce.

15th.—Pulse 85; less fever and inflammation; the hard mass in the epigastric region diminishing; has slight discharges from the vagina, containing some pus. Oil operated.

16th.—She is in a moist perspiration; pulse 80. Continue the bandage, with a napkin wet in external application.

17th.—Continues to improve; pulse 78, natural. Asks for something to eat; toast-water and gruel given.

19th.—Much improved; sits up ten minutes in bed.

23d.—Sits up thirty minutes in bed. Takes beef-tea, toasted bread and tea.

28th.—Up in chair. Good appetite; takes broths and porter or ale.

30th.—Feels well, she says, except a slight cough.

Thirteen months previous to this confinement, I attended her with the first child, which was delivered by turning and craniotomy. This case will illustrate how much nature is capable of doing in the process of recovery, with the aid of little medicine. Accidents of this kind seldom do well, but cases are on record of patients recovering from them and subsequently giving birth to living children; they are very rare, however.



## Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

*Diphtheria*.—[This disease having been made the subject of discussion at several successive meetings, from Dec. 31st to Feb. 25th, an abstract of the proceedings is presented under one head, for the convenience of reference.—SECRETARY.]

Dr. AINSWORTH reported the following case.

Mr. C., living in Chelsea, 68 years old, not strong in health, regular and temperate in his habits, was taken, at his counting-room in Boston, with sudden faintness, and a feeling of excessive weakness. He did not complain of chilliness. He remained at home two or three days, during which time a sore throat came on; it was painful, but he had no fever. He returned to business for about two weeks, and during this time the glands on both sides of the neck became swollen, and his throat felt as though it was filled up. He said he was obliged to swallow with great care, or "it would not go down." The expectoration was very profuse, and, from the description, may have contained some false membrane. His appetite and strength failed rapidly. About two weeks from the first attack, he was taken with chills at his place of business, and brought home. He had considerable fever, some pain in the side, and dyspnoea. He was unable to swallow solid food, and could take but a small quantity of liquid at a time. Four days after the last attack, he died suddenly.

At the *post-mortem* examination, I found the posterior part of the tongue, the tonsils, palate and pharynx coated with a thick, pulsataceous deposit, having little or no tenacity. The tonsils and uvula were not swollen; the mucous membrane was red and granular in its appearance, and there was a sour, disagreeable smell, but no gangrenous foetor. In the oesophagus, the false membrane extended to the stomach, and had considerable tenacity; the membrane underneath was thickly streaked with injected bloodvessels. In the trachea, the mucous membrane was much inflamed throughout, and covered in spots with patches of membrane. The bronchia contained a thick viscid mucus, in which appeared some shreds of membrane. The upper lobe of the right lung was solidified, and there were a few flakes of lymph adherent to the pleura pulmonalis.

Dr. LYMAN had had a similar case. The patient, a boy 7 years old, was supposed to have croup. There was fever, but no prostration; the appetite was good, but he had aphonia from the beginning, and a croupy cough for the last twenty-four hours only. On the second day, the fauces and tonsils were covered with a whitish membrane, which came on rapidly, and some of which was expectorated the third day. There was no evidence of sloughing. He died suddenly and with no struggle, having but a few moments before raised himself in bed to drink. Dr. L. was unable to decide on the nature of the disease at the time, which he had called membranous croup, but he was now inclined to think the case similar to Dr. Ainsworth's.

At the next meeting, Dr. Lyman reported another case of the same kind, as follows:—Elise F., 7 years old, began to complain, on the evening of January 31st, of headache, fever and pain in the temples, and got no sleep. She was first seen at 1, P.M., the next day, when

she had a pulse of 148, full and strong; face flushed; tongue slightly coated; no cough or difficulty of breathing; no perceptible swelling externally, and no tenderness of larynx on pressure externally; no complaint of weakness. She had thirst, pain in swallowing, was very drowsy, the breath was offensive, the tonsils were much swollen and covered with a pultaceous-looking membrane, uvula free. She was ordered two grains of chlorate of potash every other hour, alternating with a fever mixture. The throat was touched thoroughly with the solid nitrate of silver. Some oil was given, but vomited, and an injection was ordered; wine and beef-tea for diet, and ice in the mouth. The potash was omitted in the afternoon, it having been vomited, and the fauces were cauterized with the solution of lunar caustic, of the strength of a drachm to the ounce. At 9, P.M., the patient felt brighter, the tongue was less coated and the breath less offensive; the pulse was at 144. The drowsiness continued; no cough.

Jan. 2d, 9, A.M.—Pulse 132. All the symptoms were improved. The lower part of each tonsil was clear of membrane, and bright red; the upper portion was still covered, the membrane extending over the uvula. There was slight hoarseness, but no cough. The bowels were moved. She resumed the potash, and continued the mixture. At 8, P.M., she was very comfortable. Pulse 124; skin less hot; less thirst. Has continued the wine and beef-tea, taking broth very freely.

3d.—Had a comfortable night. Pulse 116; skin hot and dry; no hoarseness or cough; still some drowsiness; is very irritable. Some membrane extending over the back of the pharynx, none elsewhere, but the parts look very swollen and red. Continue wine and beef-tea.

4th.—Slept well; looks better in every way. The swollen fauces have a healthy, red, inflamed appearance; two very small patches of lymph only are seen in the back of the pharynx. Pulse 108. Continue the potash three times daily.

Feb. 28th.—The patient recovered rapidly, but required tonics largely for a fortnight.

Dr. CABOT had had a case in a patient 20 years old, in which the exudation resembled a coating of spermaceti. There was also a transparent veil of mucus in the back of the throat. The exudation was both thicker and more translucent than the ordinary false membrane of croup; where it came off, it left an eroded surface. The disease might be considered diphtheritic sore throat. Dr. C. did not consider it a case of diphtheria, because the patient recovered.

Dr. LYMAN observed that both Dr. West and Mr. Greenhow speak of a large proportion of recoveries.

Dr. GOULD supposed the disease to be a purely constitutional one, and that death was not owing to the local manifestation. Such was certainly the case in a patient whom he saw, who, after apparent recovery, sank and died. He had noticed a remarkable slowness of the pulse in these cases.

Dr. FIFIELD gave some account of an epidemic of diphtheria in the village of South Weymouth.\* He said that in the cases which he had seen, the application of solid caustic, and also of tincture of iodine, seemed to aggravate the disease. The throat was much swollen externally, so that the integuments burst after death, in one instance.

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\* This has been printed as a separate paper, in the JOURNAL for March 7, page 110.



He considered the disease to be a constitutional one, sometimes descending like a thunderbolt, at others being very mild. In the case of the young man with the wound in the hand, there was no deposit of membrane on the surface of the wound.

Dr. SLADE observed that in some epidemics death took place before the membrane had time to form, showing it to be a constitutional disease.

Dr. GOULD thought that in these cases the membrane might exist lower down in the air-passages, though none was visible in the fauces ; just as sometimes occurs in croup.

Dr. AINSWORTH also reported the following case of diphtheria.

Miss G., 29 years old, unmarried, of full habit, had once acute tonsillitis. Was seized, Friday afternoon, Feb. 1st, with severe rigors, followed by fever. During the night, the throat began to swell, externally and internally. Saturday morning she was unable to swallow. I saw her on Sunday morning. The tonsils, uvula and soft palate were swollen—the left tonsil and side of palate the most so ; a small patch of greyish-looking exudation on the tonsil. She swallowed with the greatest difficulty. The neck, on the left side, was much swollen and sore. There was no difficulty of breathing ; no aphonia ; pulse 112, but not full ; tongue much coated ; no fœtor of breath ; profuse expectoration of glairy mucus. I applied a strong solution of nitrate of silver, and left a gargle of chlorate of potash, diluted muriatic acid, and directed mustard to throat and neck. On Monday, appearance of throat about the same. Complained of the caustic. There was no deposit on the left tonsil. Ordered citrate of magnesia, and continued the gargle. On Tuesday, general symptoms the same, had slept none, looked pale and exhausted. Patch of greyish matter on left tonsil, and on left side of uvula. Nitrate of silver applied. The greyish appearance came off in the coughing. Mucous membrane underneath colored by nitrate of silver. Pulse frequent, but not strong ; skin moist and cool. Is to swallow broth, and flax-seed tea ; continue gargle. Wednesday : symptoms much the same. Swelling in throat undiminished ; greyish deposit again on tonsil and palate ; is unable to swallow—fluids regurgitating through the nose. Voice weak, but not hoarse. Breathing easy ; pulse same. Did not see her on Thursday. On Friday, symptoms of general prostration ; countenance pale and anxious ; a choking feeling about trachea, with desire to raise ; profuse expectoration of viscid mucus, mixed with greyish, pasty-looking matter, not organized false membrane, mixed with occasional streaks of blood. No fœtor of breath or of sputa ; no cough ; voice husky, but clear when no effort is made. Respiration frequent, but not difficult ; pulse 120, weak ; has taken no nourishment, and had no sleep. Can swallow but a teaspoonful at a time, with great difficulty. Tonsils, palate and back of throat covered with pasty exudation. Swelling on left side of neck much diminished ; left tonsil can be felt externally. Strong solution of capsicum to be used as gargle, diluted per-chloride of iron applied with a brush every four hours ; enemata of strong beef-tea with Madeira wine to be administered every four hours ; wine to be given by mouth. In the evening, increased symptoms of general prostration. Swelling of tonsils and throat diminished. Voice husky ; respiration frequent, embarrassed ; pulse 120, weak. Continue treatment. On Saturday morning, the patient was very much exhausted ; pulse very frequent, weak and irregular. Res-

piration labored. Dry sonorous râles along the bronchial tubes, and in the back. The throat very little swollen; patches of greyish deposit upon it. Swallows with more ease; voice weak, rather hoarse. Inspiration and expiration equally difficult; no lividity of lips or of extremities. Seen with Dr. Homans on Saturday. Same treatment continued. The patient died on Saturday evening. Half an hour before death, the voice became natural, and she was able to swallow with comparative ease.

I have been informed that a sister of the patient, who attended her during her last illness, and accompanied her body to her home, in Maine, was taken with the same disease, and died after a short illness; and that a brother subsequently met with the same fate.

Dr. MINOT reported the following case.

A little girl, six years old, residing in South Reading, was attacked, while in full health, during a visit in Boston, on the evening of January 24th, with pain and feverishness. The right side of the neck, about the angle of the jaw, was much swollen and very tender; there was pain in moving the jaw; the pulse was moderate. There were several cases of mumps in the neighborhood, and the case was considered one of that disease. Dr. M. did not see her again until the 27th, when the swelling and pain had diminished on the right side of the neck, but had invaded the left side. At the same time, the child exhibited a marked degree of prostration, with great drowsiness. On examining the throat, an ash-colored exudation was seen covering the middle of the palate and uvula. The prostration and drowsiness continued until the death of the patient, which occurred in the forenoon of February 1st; and to these symptoms were added frequent vomiting, difficulty of swallowing, and a most remarkable slowness of the pulse, which was at 60 in the minute on the evening of the 29th and morning of the 30th; at 48 on the evening of the 30th; at 36 on the morning of the 31st; at 32 on the evening of the 31st (the respirations being at that time 36 in the minute). The pulse was barely perceptible at the wrist after the 30th. Shortly before death, the pulse rose to 120. The degree of muscular strength was remarkable to the last, and the mind was perfectly clear. The urine was scanty. The treatment consisted in the administration of tonics, stimulants and concentrated nourishment, which had to be given partly in enemata, on account of the constant vomiting. Dr. Bowditch saw the patient several times in consultation with Dr. Minot.

Dr. JACKSON reported the following facts in regard to an epidemic which had been going on in Groton Centre since last August, and which he had received from Mr. G. F. Shattuck, a student of Dr. Geo. Stearns, of G. This village, which is about 30 miles from Boston, has a population of 1500, and the disease has been confined to it; there have been about 50 cases and about 16 deaths. Some individuals were so slightly affected as not to be confined to the bed, but many who recovered were sick enough to cause great anxiety. The ages of the patients varied from about 2 to 50 years; and in the youngest the disease was most severe. It came on slowly, with sore throat, some fever, tenderness of the cervical glands and rapid prostration. Lymph was seen in the fauces of nearly all, and in the worst cases upon the inside of the cheeks and upon the tongue. In one who had a sore upon the hand, lymph appeared there also. In some there was dysphagia, but in more there was dyspnœa; these two symptoms not



being observed together in the same case. The voice was sometimes lost; and though respiration was sometimes stridulous, it was much less so than in croup. In one case the swelling of the glands in the neck was very strongly marked. In some, there was delirium. Abdominal symptoms not more marked than in any acute disease. Death occurred in from one to two weeks; and if the patients survived this period, they usually recovered. Of the fatal cases, no dissection was made. The epidemic got to its height one or two months ago, and has since been about stationary. In several families every individual was attacked, and the first cases that occurred seemed to show that the disease was highly infectious. A clergyman of G. went to New York, and there lost a child with diphtheria; the body was carried home, and the first case that occurred in Groton Centre was another of the clergyman's children, the second being a child of the physician who attended it. Quinine or the muriate of iron internally, the application of muriatic acid to the fauces, with stimulants generally, seemed to be the best treatment. The nitrate of silver was used freely in the first cases, for the throat, but seemed to do harm. The above treatment was generally preceded by an emetic and cathartics. Since Christmas, about forty cases of measles have occurred in the village; several who recovered and two who died from diphtheria having had the disease.

Dr. J. showed the lymph that was spit up by a woman 48 years of age, and who recovered, though very severely sick; the patient was seen by Mr. Shattuck, and a short history of the case by him was read.

Dr. FIFIELD remarked that the cases which he had seen differed from the published descriptions of the disease. The first time you look into the throat, you see the deposit. Some cases are more characterized by the swelling of the tonsils and uvula than the deposit of membrane; but the membrane is always visible from the beginning. Muriatic acid, mixed with honey, seems to answer better than nitrate of silver, as a local application.

Dr. AINSWORTH remarked that Dr. Childs, of Pittsfield, had found the nitrate of silver of great advantage, applied frequently.

Dr. MINOT read an account of the case of Dr. Horace W. Adams.\*

Dr. J. BIGELOW remarked that in these cases the patient may die from coma, syncope or asphyxia, according as the brain, heart or respiratory organs give out first. The epidemic now or lately prevailing, has been known for centuries in Europe, and is undoubtedly the same as that which ravaged New England in 1735, and which was at that time described by Dr. Douglass. It began in Kingston and Exeter, N. H., where the first forty patients died. In a few months it spread to Boston, where it carried off one hundred and fourteen persons. In some cases the membrane may be wanting, as undoubtedly occurs in croup, sometimes. This was particularly the case in croup, forty or more years ago. The disease, which was then described by Dr. Jackson, in the *New England Medical Journal*, was characterized by stridulous cough and respiration, and death occurred in from twenty-four to forty-eight hours. In the four cases described by Dr. J., no lymph whatever was found after death. Dr. B. was present at two of the autopsies.

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\* This paper has already been printed in the JOURNAL for March 7, page 106.

Dr. BETHUNE said he had seen Dr. Adams on the Friday before his death. He then showed much strength, and did not look at all like a man about to die. The absence of anything like a croupy cough or respiration, was very remarkable. Hence in croup we may suppose that some other element, probably spasm, enters into the disease.

Dr. MINOT said that although at times there was some slight difficulty of breathing, there was never was anything like the dyspnoea of croup in Dr. Adams's case. Death was probably occasioned by a small flap of membrane becoming drawn into the narrowed glottis during inspiration, which may have produced a fatal spasmodic contraction. It is true that no actual obstruction was found at the autopsy, but several loose shreds were seen close to the glottis, which might easily have been thus drawn in, and have fallen out again, after the spasm was relaxed by death, while the parts were being removed for examination.

Dr. W. E. TOWNSEND said that Dr. Adams had a severe cold at the time he left Boston, and was advised not to go. He suffered much from the cold while there.

Dr. H. J. BIGELOW said that Mr. Gardner had a sore throat the evening before he went to Cotuit, and that one of his friends, who was with him the same evening, was soon afterwards laid up with an attack of acute tonsillitis.

Dr. ELLIS observed that the lesions in Dr. Adams's case were those of croup, but the symptoms were not such as we ordinarily see in membranous croup; but the larynx and glottis in the adult is large, and we can hence imagine that dyspnoea might be absent. Dr. Ellis asked how the morbid appearances in the case of Dr. Adams could be identified as those of diphtheria, and distinguished from the appearances which have been more usually considered as of a simply croupous character?

Dr. H. J. BIGELOW alluded to a case which occurred in Winchester, in which a thick membrane was found in the trachea and bronchia. The patient died suddenly, after a short illness, probably by a flap of membrane becoming entangled in the glottis.

Dr. BETHUNE thought that the great swelling of the neck and of the tonsils was sufficient to distinguish the case from one of ordinary membranous croup.

Dr. LYMAN thought it was not common to see membrane covering the fauces and palate in croup.

Dr. JACKSON had occasionally seen the membrane covering the fauces to some extent in croup. He thought, however, that the fact of the epidemic existing at the time, the age of the patient and the general history of the case, were sufficient to justify us fully in saying that Dr. Adams died of the disease now prevailing in Europe and in this country, and which is called diphtheria. The swelling of the neck is far greater than he had ever seen in croup.

Dr. COALE observed that there was a distinction to be made between muscular debility and vital prostration. In many malignant diseases, as the yellow and ataxic fevers of the South, patients often exhibit extraordinary muscular energy but a short time before death.

Dr. J. BIGELOW confirmed Dr. Coale's observation. Patients in the delirium of typhoid fever will often get out of bed, unless prevented, shortly before death. This distinction is only useful as furnishing a guide to practice. As to the distinction between diphtheria and croup,



we must recollect that the essence of the disease, which constitutes identity or diversity in cases, may depend on a variety of things. In some cases we rely on the symptoms for our diagnosis, as in colic, hysteria, and mania; in others we depend on anatomical conditions, as in pneumonia, peritonitis and phthisis; in others, again, on the specific cause of the disease, as in smallpox and syphilis. It is difficult to make a definition of a disease. We must select some case as a pattern, and name others according as they approach more or less to it. He regarded the contagiousness of the disease as far from being settled.

## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MARCH 21, 1861.

REPORT OF THE MASSACHUSETTS GENERAL HOSPITAL.—The Annual Report of the Trustees of the Massachusetts General Hospital for 1860 is comprised in a well-printed pamphlet of 55 pages, which we have just received. It includes the reports of the Resident Physician, of the Physician to the Out-patients, and of the Superintendent of the McLean Asylum for the Insane, from which it appears that these institutions are on the whole in a satisfactory condition. The whole number of patients admitted into the General Hospital during the year was 1,240, of whom 997 were free. The whole number treated was 1,394. The number remaining in the Hospital at the close of the year 1860 was 136, 15 of whom only were paying patients. According to the report of Dr. Shaw, the Resident Physician, the Hospital is capable of accommodating 180 patients, and it is a circumstance worthy of note, as bearing on the question which has been somewhat agitated, with reference to further hospital accommodations in the city, that the beds have never as yet been fully occupied—one hundred and seventy-five being the largest number ever in the house at one time. A greater number even of free patients, says Dr. S., could be received if the income of the Institution were sufficient for their support. It is to be regretted that Boston, with all its wealth, should be unable to sustain a hospital in a manner corresponding to its position and character. The number of admissions, it seems, would have been considerably larger during the past year, had it not been for the offensive and unwholesome effluvia arising from the flats and newly-made land—if land it can be called, composed, as it is, of all the offal of the city, phosphorescent with animal remains—and liberally interspersed with coffee pots, stovepipes, cows' horns and old boots. It has often seemed not a little strange to us, in these days of boasted enlightenment, sanitary associations, &c., that our city should select the immediate neighborhood of the sick, those who of all others are peculiarly dependent upon wholesome air, where to deposit the filth of the city, while the blue blood of the Back Bay is refreshed with breezes wafted over the fragrant *débris* of a rural hill in Needham.

The number of out-patients during the year was 4271, a large increase in the number in this department; "an additional evidence," says the report, "of the public want of such a provision."

We have not space to more than allude to the interesting and able report of Dr. Tyler, the Superintendent of the McLean Asylum. During the past year 121 patients of both sexes have been admitted; 109 have been discharged, and 24 have died. In all, 296 persons have been under treatment, and 187 remained in the Asylum at the close of the year.

In submitting the aforesaid reports, the Committee take occasion to express their conviction, in which they believe all the Trustees unite, "that all the various high duties, subordinate as well as important, of both departments, have been ably, faithfully and kindly performed, and that the Institution was never more worthy than now of its high reputation."

HONOR CONFERRED.—The Ophthalmic Society of Paris have made Dr. N. R. Moseley, of Philadelphia, an honorary member of the said Society, as a reward for certain discoveries in medicine, made by him.

**MEDICAL COMMENCEMENTS.**—At the recent commencement of the Medical Department of the University of Nashville, 141 gentlemen received the degree of Doctor of Medicine.—The commencement of the St. Louis Medical College took place on Friday evening, Feb. 22d, 1861, when degrees were conferred on 62 graduates. The valedictory address was delivered by Prof. C. W. Stevens.—At the fifty-fourth annual commencement of the New York College of Physicians and Surgeons, 60 young gentlemen, from most of the States in the Union, received the degree of M.D.—At the annual commencement of the New York College and Charity Hospital, 17 graduates received their degrees, and were addressed by Prof. Doremus, Dean of the Faculty.

We are requested to state, and we do so with pleasure, that Dr. C. T. Collins, who, it was erroneously stated in our issue of Dec. 13, 1860, had relinquished the care of his medical institution at Great Barrington, has returned to this country, after a brief absence, and will open his establishment, for the treatment of diseases of females, on the first of April next.

**MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA.**—In the second number of the present volume of our JOURNAL, it was inadvertently stated that the number of students registered in the Catalogue of this Institution for the year 1860–61 was one hundred and eighty. It should have been two hundred and twenty-two.

**CHANGE OF TITLE.**—The *New Orleans Medical News and Hospital Gazette* comes to us in a new dress, and with the new title of *The New Orleans Medical Times*.

### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MARCH 16th, 1861.

#### DEATHS.

	Males.	Females	Total.
Deaths during the week, . . . . .	32	32	64
Average Mortality of the corresponding weeks of the ten years, 1850–1860,	39.3	35.6	74.9
Average corrected to increased population, . . . . .	..	..	83
Deaths of persons above 90, . . . . .	..	..	..

#### Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
13	1	4	4	0	0	0	2	2

#### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	29.989	Highest point of Thermometer, . . . . .	52°
Highest point of Barometer, . . . . .	30.370	Lowest point of Thermometer, . . . . .	20°
Lowest point of Barometer, . . . . .	29.150	General direction of Wind, . . . . .	W. & N.W.
Mean Temperature, . . . . .	33°.2	Am't of Rain (in inches) . . . . .	1.634

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co, Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 585.

	BAROMETER.					THERMOMETER.			SNOW & RAIN.		Mean Amount of Cloud, 0 to 10.
	7 A.M.	2 P.M.	9 F.M.	Height.	Mean.	7 AM	2 PM	9 PM	Time	Meas-ure.	
Monday, March 4	29.54	29.60	29.63			20	27	19			
Tuesday, " 5,	29.78	29.80	29.63			13	24	30			
Wednesday, " 6,	29.57	29.53	29.65			31	43	31			
Thursday, " 7,	29.62	29.45	29.30			26	38	39			
Friday, " 8,	29.20	29.27	29.22	29.55		35	48	36	1 hour,	0.05	4.35
Saturday, " 9,	29.23	29.40	29.57			22	24	18	15 m.		
Sunday, " 10,	29.76	29.82	29.82			13	32	25			

**BOOKS RECEIVED.**—A Treatise on Fever, or Selections from a Course of Lectures on Fever. By Robert D. Lyons, K.C.C., M.B.T.C.D., L.K.Q.C.P.S. Philadelphia: Blanchard & Lea.

**COMMUNICATIONS RECEIVED.**—A Surgical Curiosity.—Some Inquiries into the Pathological Conditions of the Chest that yield Tympanic Percussion Sounds.

**DEATHS IN BOSTON** for the week ending Saturday noon, March 16th, 64. Males, 32—Females, 32.—Inflammation of the bowels, 1—disease of the brain, 5—inflammation of the brain, 2—bronchitis, 1—cancer, 2—consumption, 13—croup, 1—cyanosis, 1—debility, 2—diphtheria, 2—dropsy, 1—dropsy of the brain, 2—drowned, 1—erysipelas, 1—scarlet fever, 4—typhoid fever, 2—disease of the heart, 3—disease of the hip, 1—homicide, 1—congestion of the lungs, 1—disease of the lungs, 1—inflammation of the lungs, 4—marasmus, 1—paralysis, 1—pleurisy, 2—puerperal peritonitis, 1—scrofula, 2—tabes mesenterica, 2—unknown, 3.

Under 5 years of age, 22—between 5 and 20 years, 8—between 20 and 40 years, 15—between 40 and 60 years, 10—above 60 years, 9. Born in the United States, 44—Ireland, 15—other places, 5.



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ACTION OF CHLOROFORM ON THE BLOOD—PROBABLE CAUSES OF  
ITS FATAL EFFECTS WHEN INHALED AS AN ANÆSTHETIC.

BY CHARLES T. JACKSON, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

Six years ago, I published in this JOURNAL a case in which sudden death was produced in a healthy young woman by inhalation of pure chloroform, given preparatory to extracting a tooth. The case was investigated by a coroner's jury, a *post-mortem* examination being made by Dr. Stedman, Dr. F. S. Ainsworth and myself. The blood taken from the right side of the heart was analyzed, and was found to contain formic acid in considerable quantities, but no chloroform in an undecomposed state. Microscopic examination of the blood, by Dr. J. Bacon, showed that the blood-globules were withered up in a very remarkable manner. Chlorine was also found to be a component of the blood. It was also observed that this blood did not coagulate, nor did the blood-globules subside, but the whole remained a solution, the blood having a cranberry-red color, like red ink.

I have now a phial of this blood before me, it having been kept in my office, exposed to temperatures from the freezing point to above 80° for more than six years, and yet it has not decomposed, nor has a single blood-globule settled to the bottom of the phial, nor has the color changed in the least.

Attention is now called to these remarkable phenomena, which appear to throw some light on the chemical action which chloroform exerts on the blood. As I view the matter, I consider the chemical action on the blood by inhaled chloroform to be this:—Chloroform consists of one equivalent of formyle and three of chlorine. Formic acid consists of one equivalent of formyle and three of oxygen. When chloroform is inhaled into the lungs, the oxygen is abstracted from the blood, and combining with the formyle makes formic acid, while chlorine combines with the blood as a substitute for oxygen. Thus a portion of the blood becomes chemically

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changed, disorganized and rendered unfit for its vital functions. Then, if that portion of the blood contained in the heart, and large vessels, which we may style the immediate working blood of those organs, is vitiated, so as no longer to be an appropriate stimulus to the most vital organs, sudden death is most likely to take place through cessation of their action. Our only surprise should be that death does not more frequently follow from inhalation of this dangerous anæsthetic agent, for the decomposition I have described undoubtedly always takes place to a certain extent, and to a sufficient degree to deoxidize a considerable portion of the blood, and to charge it with chlorine and formic acid.

It is well known, that deaths more frequently take place in cases where chloroform is administered in minor surgical operations, or in cases where there is no loss of blood, than in larger and bloody operations.

This I think admits of an explanation in the fact, that where there is large hæmorrhage the vitiated blood, or a portion of it, is removed and is replaced in the vital organs by blood coming from other parts of the body, where it has been but little acted upon by the chlorine—a new working blood being drawn into the large circulating organs, which are thus enabled to continue their proper action, and to supply the brain with its appropriate stimulus. This hypothesis appears to me to cover the cases thus far reported, and I offer it for the consideration of physiologists.

The great disadvantage under which chloroformization labors is the introduction of chlorine, as such, into the composition of the blood. This we know to be destructive of the blood-globules, and an actual poison in the system.

We naturally inquire how this vitiated blood is got rid of, for it evidently never can be re-organized in the circulation. It is undoubtedly thrown off as so much effete matter, by the secernent and excretory organs, and chiefly by the kidneys. Hence, in a large majority of cases, the patients recover with but little damage to their health, though there is always a degree of prostration in most if not all cases of chloroformization.

It is obvious that we may much diminish the danger in employing this agent, by mixing with it a large proportion of pure ether, say at least three fourths of its bulk. By this means we not only dilute the dangerous with a perfectly safe anæsthetic agent, but add the stimulus of ether to overcome the deadly, depressing effects of chloroform. The object in allowing any addition of chloroform to ether, was to obtain a less bulky and more powerful agent than pure ether alone, and to afford greater facility in carrying an anæsthetic agent into the field of battle. It was therefore recommended by me, and was used in the French and Sardinian armies of the Crimea, with great success and safety, while chloroform, which was employed by the English surgeons, produced many fatal accidents. Still, in cities and at home, or in



hospitals, I should always prefer pure washed ether, as it is known to be a safe and sure anæsthetic agent, though it is somewhat bulky. However, from my own experience and observation, I must say I never have known any fatal or even inconvenient effect to result from the employment of the mixture of chloroform and ether in the proportions I have named.

In Austria, by orders of the Government, one ninth of the bulk of chloroform is added to ether, and this is employed in the Austrian hospitals and armies. Its introduction was effected by Dr. Weiger, of Vienna, and it is stated that no fatal accidents have thus far arisen from its use. It is obvious that the dangers from chloroform are diminished in the direct proportion to its dilution with ether. The surgeon is more able to guard his patient from an over-dose, and the comparative lightness of ether, when compared with chloroform, together with the stimulating nature of ether, allows the more ready exhalation of the vapor, and prevents nervous depression from going too far.

As to the impurities of chloroform of commerce, I am aware that it is liable to contain fusel oil and the products arising from decomposition of that poisonous fluid, also free chlorhydric acid, and sometimes sulphurous acid, are present in badly-prepared chloroform. Such chloroform we should at once reject, as being wholly unfit for inhalation, either alone or in any mixture.

Some chloroform, from causes not yet fully known, readily undergoes spontaneous decomposition, with the disengagement of pungent fumes of chlorhydric acid gas. I have two samples now on hand which have thus undergone decomposition. This chloroform was made according to directions contained in the United States Dispensatory, by one of our most skilful pharmacutists. When freshly prepared, it appeared to be of good quality, but in a few months underwent decomposition, as above stated, and without having been exposed to direct sunlight.

Chloric ether, so called formerly, is nothing but an uncertain mixture of chloroform and alcohol. When administered on a wet sponge, the alcohol is retained by the water, and only the chloroform is inhaled by the patient. The first samples introduced here were merely the unwashed first runnings of the chloroform still. Subsequently, the article was made more uniform in strength, by dissolving one measure of chloroform in three measures of 95 per cent. alcohol. This preparation is now but little used as an anæsthetic, several deaths having resulted from its inhalation—one at Lynn and another at the Chelsea Marine Hospital will be remembered by physicians in this vicinity.

It is well known that there have been a large number of deaths caused by the inhalation of chloroform, while it is believed here that there are no well-ascertained deaths resulting from the use of ether. That deaths occur in grave surgical operations many hours or days after an operation effected under etherization, is no

evidence that the ether caused the death or had anything to do with it, and yet we see such cases tabulated and presented to the public as proofs of death from etherization. Such reports should not be adopted without careful analysis and discrimination of the real facts concerned.

Lest some persons may suppose that the discoverer of etherization is jealous of any substitute for ether, let me say that I was the first person in this country who adopted Waldie and Simpson's substitute for ether, and that I not only made the first pure chloroform, and distributed it gratuitously to physicians, but also induced a manufacturer to procure one of the largest stills, and instructed him in the processes of the manufacture and purification of chloroform. I also made public trials of the effects of this preparation, administered it to our late chief surgeon, Dr. J. C. Warren, and aided in every way the introduction and use of this new agent. Experience has at length satisfactorily proved that chloroform is a dangerous substitute for ether. I feel bound, therefore, to aid in calling upon the medical public to return to their original anæsthetic agent, pure washed ether.

*Tests for Chloroform.*—The following are the approved tests for chloroform:—

1st. For *Alcohol*.—Take its specific gravity at 60° Fah.; if it is lower than 1.496, alcohol or ether may be present. To test for alcohol, take a graduated glass test-tube, put in a given measure of the chloroform, and add water. Then shake up quickly, stop the tube, and set it in a cold place until the chloroform has entirely subsided; observe how many divisions the chloroform has contracted to, and thus measure the proportion of alcohol that has been dissolved by the water.

2d. For *Aldehyde*.—Hydrated oxide of silver is reduced by it to the metallic state, without heating. A solution of caustic potash turns the aldehydic chloroform brown.

3d. *Formic acid* reduces nitrate of silver to the metallic state, when chloroform containing it is mingled with a solution of the nitrate of silver and is heated.

4th. *Chlorhydric or muriatic acid* is detected, first, by the acrid and pungent fumes of the gas; secondly, by the formation of a dense white cloud, when a feather dipped in aqua ammonia is brought over the impure chloroform; thirdly, by the formation of a white precipitate of chloride of silver, when nitrate of silver solution is added. Litmus paper, wet with pure water, is instantly reddened when held over the mouth of a bottle containing chloroform, giving out chlorohydric acid gas.

5th. *Hypochlorous acid* may be detected by its odor, and by its first reddening litmus paper and then partially bleaching it.

6th. No ready and satisfactory tests for the presence of *methyle* are yet known, but its effects on inhalation are known to be, a peculiar throbbing headache, and rapid prostration of the vital pow-



ers. Dr. Lethcby states that these effects may be observed, on merely smelling of a chloroform containing these compounds, the headache coming on in a short time.

7th.—*Sulphurous acid* may be detected by its odor, being the same as that of a burning sulphur match, and by its bleaching litmus paper.

8th. *Hydrochloric ether* may be washed out from chloroform by water, and be obtained by distillation of the aqueous mixture.

Dr. Lethcby states that, chloroform should be perfectly colorless and free from opacity; that its specific gravity should be near 1.496. It should neither redden nor bleach litmus paper. It should not become opaque when dropped into water. It should not become cloudy and white when nitrate of silver solution is added to it. It should not coagulate white of egg; and, we may add, it should not turn brown when concentrated sulphuric acid is mingled with it, nor should it be made brown by the action of a strong solution of hydrate of potassa. It should leave no odor in a sheet of blotting-paper from which it is evaporated.

By these tests the physician and surgeon who employ chloroform as an anæsthetic, may know whether he has a pure or an impure article to operate with.

*Boston, March, 1861.*

## TRIAL FOR MURDER BY POISONING.

(Continued from page 136.)

### TESTIMONY FOR THE DEFENCE.

*Frederick S. Ainsworth.*—Reside in Boston. Am a practising physician and surgeon. In practice sixteen years. Have had a good deal of experience in post-mortem examinations—some hundreds of cases. I held the position of teacher and demonstrator of anatomy at Boston. Pursued my studies in foreign countries. Have paid attention to strychnia. It produces death in five to six hours. If given in solution, action much more rapid. In case of several grains of strychnia taken during the night, the person would not be likely to live till ten or eleven o'clock the next day. The spasms are intermittent—come on suddenly; the person is usually conscious that they are coming. They come like lightning; the limbs are drawn up forcibly, back bent, sense of suffocation, difficulty of breathing, fixing of jaws. The patient is usually conscious; he may be unconscious at the very last paroxysms, from exhaustion. Sometimes the spasms are so severe as to throw a person off the bed, but there is no throwing out of the arms. I cannot say it is impossible to throw out the limbs, but it is not done. The patients swallow with exceeding difficulty during the spasms; sometimes call for water or something to drink when the spasms are coming on, and after they are over. I don't know of

any case where they called for stimulants. Strychnia is intensely bitter when dissolved. Should not think whiskey would disguise the taste. Two or three grains in solid form might be swallowed without knowing it; but if in solution, I think it would be impossible without knowing that something wrong had been taken. It is not an irritant poison. I should not expect the redness of the stomach, as testified to, to be produced by strychnia. It would be contrary to reported cases. I do not think that freshness of color is any evidence of death by strychnia. It is not a preservative.

In sudden death, blood often does not coagulate—there is no rule about it; it is occasionally found in a fluid state. It is common to find the lungs more or less filled with blood after death. The brain is also quite often gorged with blood. There is nothing unusual in the discoloration of the neck. It is caused by the blood of the smaller vessels oozing out.

After death by strychnia, the muscles are very much contracted and rigid. It comes on in a few minutes, if not existing at time of death. If death occurs in a spasm, body is rigid, but it is very different from common rigidity—that comes on more slowly. After this is once overcome, the body remains flexible; but in case of strychnia, it flies back after once bent. The fingers are more or less bent; the feet bent in, so that the toes and heels would touch the floor or bed; the spine bent up, and body rests on the head and heels. Such rigidity exists in every case I have seen reported, except one or two. In the case I refer to, no strychnia was found, and it is considered doubtful.

The effect upon animals is to make them become very stiff. I should not consider the result of an experiment upon a frog reliable in a case of life and death. I should not consider that you could rely upon such. There are substances which will kill them, but will not affect man. I should not think the left ventricle could be filled with blood in case of death from strychnia. Have never seen such a case. In death from asphyxia, the right is generally filled with blood.

I heard Drs. Hubbard and Davis's testimony, as to the post-mortem examination. Important organs were not examined—a disease of which might have caused death.

None of the contents of the stomach can pass into the tissues of the stomach without first passing into the circulation. It must first be taken up by the vessels which take up the food, and pass into the blood, through the heart, into the general circulation, and then into the tissues. It can produce no effect till it passes into the blood. If found in the tissues of the stomach, it must exist in all other tissues where the blood goes. It is said, by the best authorities, that it cannot be separated from the blood. The ordinary weight of a stomach is from two to four ounces. In a man of ordinary size, in full health, the weight of blood is from thirty to forty pounds.



Have witnessed symptoms of death from alcoholic drink in post-mortem examinations. The ways of death are almost infinite—delirium, spasms, apoplexy, and convulsions, or rum fits. The patient is conscious out of convulsions, unconscious in them. A case of convulsions requiring two persons to hold the patient, is consistent with convulsions from alcoholic liquor. Flaccidity of the muscles is also consistent. We do not often find smell of rum, even when persons die intoxicated; have not often seen any traces. In a case where a person was in the habit of excessive drinking, was taken sick in night, having spasms, requiring two persons to hold him, and dying the next day, I should say he died from alcoholic poison. Alcohol is a preservative of tissues. It would have no effect to preserve the body, and would have no effect upon the color of surface.

In a case of poisoning by strychnia, I do not think that chemical evidence, unsupported, would be sufficient to rely upon.

*Cross Examined.*—I think the rigidity of the body may be considered a necessary characteristic of poison by strychnia, it exists in so many cases. None is absolutely necessary; congestion of the brain is common; fluidity of blood is found.

I am not able to say what would be the effect of a great deal of spirit upon poison by strychnia. The effect of alcoholic liquor is to relax the muscles. It might have the effect of removing rigidity. I should not think it would modify it, but I am not prepared to say it might not.

If two to three grains of strychnia were given in small doses, death would not occur so soon. If mixed with spirit and sugar, the taste might be modified. There would be none of the napping between the spasms. One of the characteristics is a desire to be rubbed and to be held. Death may take place in spasms or in the interval between them. The appearance of the heart I have stated is not expected where the person dies in the interval.

Frogs may be killed by saltpetre. I don't think I should be willing to call anything tetanic spasms in these. A quarter of a grain of oxalic acid might produce death in a frog in time, but probably not within an hour. Think the oxalate of ammonia will kill them. I should want to extend the substances to more than two before I would give an opinion upon their identity. I don't think you could reason from the similarity of results that the substances were the same. Frogs are used in connection with the tests for strychnia for physiological purposes.

Taylor and Frondan are both eminent chemists—both published books. There is no such thing as digestion going on during convulsions. After the amount required to produce death had gone into the blood, no more would be taken up after death.

*Re-examined.*—Digestion depends upon the kind of food; ordinarily digests in three to four hours. I think the taste of strychnia

nia would not be disguised by being dissolved. Offering the patient drink is said to usually result in bringing on a spasm.

The bath, or introducing poison under the skin, is the most approved way of experimenting upon frogs. No doubt it could be done by introducing it into the stomach. It would take longer to get into the circulation in that way.

If I were satisfied that there was a sufficient quantity of poison in the stomach to produce death, it would be evidence, but not conclusive, that death was caused by the poison. Strychnia can be detected when in the contents of the stomach. It is very doubtful if it can be found in the tissues. I mean, by tissues, the substance of the stomach. Nothing which comes in contact would remain in the substance, except violent caustics. I don't profess to be a chemist, and have no practical knowledge of these matters. My opinion is that strychnia cannot be found after it goes into the circulation.

*Dr. George W. Kittredge.*—Reside in Newmarket. Practising physician and surgeon twenty-five years. Have made a number of post-mortem examinations. Where the spine, spleen, pancreas, rectum, &c., were not examined, should not consider it satisfactory. Have seen effects of alcoholic liquors. In a case where the patient was in the habit of excessive use of liquor, ate a hearty supper at night, went to bed soon after, was taken sick during the night, with convulsions, requiring two persons to hold him, and died the next forenoon, I can see nothing inconsistent with death from alcoholic liquor.

But in that case, if even one grain of strychnia were found in the stomach, I should have no doubt death was to be attributed to the poison.

[To be continued.]

## AN AFFECTION OF THE THROAT RESEMBLING DIPHTHERIA, FOLLOWING VARICELLA.

By WILLIAM READ, M.D., BOSTON.

[Communicated for the Boston Medical and Surgical Journal.]

THE patient, a girl ten months old, was taken with chickenpox on Friday, January 4th. The disease went on in its regular course, the eruption coming out very freely, and the scabs forming in the usual manner, and at the usual interval. Except considerable fretfulness and slight febrile symptoms, there was nothing remarkable in the case, and professional advice was not sought after the real nature of the attack was known.

Jan. 15th.—I was called in the early part of the day, and found the child evidently ill. Expression of the face bad. The mother reported that on the previous evening it acted as if the throat were sore. It could not nurse long without stopping to breathe, nor



could it lie down without dyspnœa. Was very restless through the night, being frequently waked by choking. Now, respiration indicates a quantity of loose substance in the throat. Lips rather dry. Tongue somewhat coated. There is a great abundance of thick, tenacious, whitish secretion in the throat that seems to fill it as far as can be examined by depressing the tongue with the handle of a spoon. Palatal arch and the roof of the mouth, together with the region about the tonsils, and in fact all of the interior of the mouth as far as can be seen, injected, but not of a bright red. The color was more yellowish, resembling somewhat that of the conjunctiva in jaundice. Submaxillary glands swollen and tender. Within a few days, has had a discharge from the right ear. Neck seems to be moved with difficulty. Dejections natural in character and frequency. Urine high-colored and very pungent. Voice modified by the condition of the throat. Heat of skin but little above normal standard. Pulse not counted, owing to resistance made by patient. *R.* Ammon. carb., gr. vi.; syrup. simpl.,  $\frac{3}{4}$  i.; tr. cinchon.,  $\frac{3}{4}$  ss. *M.* A teaspoonful every two hours. *R.* Acid. muriat.,  $\frac{3}{4}$  ss.; mel., q. s.; aquæ,  $\frac{3}{4}$  ij. *M.* Ft. gargar. 5, P.M.—No change. Continue treatment.

16th, 9 $\frac{1}{2}$ , A.M.—Expression of face better. Had a restless night. Throat, and all of the mucous membrane that could be seen, covered with a dirty-white pultaceous coating. Respiration improved. Heat of skin same as yesterday. Has had one dejection. Urine less pungent and more abundant. Has nursed some (did not nurse at all yesterday). Continue treatment.

6, P.M.—Soon after last visit, patient had an attack of dyspnœa, very severe and long continued, from which she rallied after vomiting up a quantity of tenacious mucus. Since then has continued in about the same condition. Skin cool. Mouth and throat in same condition. Had no nausea previous to this morning. Has coughed some, with a hoarse sound. Mother reports that she has experienced no soreness of the nipples, nor do they seem to be affected at all by the condition of the patient's mouth. To have an emetic of pulv. ipecac. p. r. n. *R.* Potass. chlor., gr. x.; tr. ferri mur., f  $\frac{3}{4}$  i.; syrup. simpl., f  $\frac{3}{4}$  ij. *M.* A teaspoonful every two hours. *R.* Argent. nit., gr. xxx.; aquæ,  $\frac{3}{4}$  i. *M.* Ft. sol. Apply with a camel's-hair pencil freely over affected surface.

9 $\frac{1}{2}$ , P.M.—Has had no sleep without dyspnœa since last visit; pulse 124 (under the knee), soft and rather feeble. Is vomiting freely a thick creamy mucus. Mucous membrane of mouth still covered with the coating. Dr. C. E. Buckingham, who was present at this visit, suggested that the case was one of aphthous sore mouth, caused by debility brought on by the attack of varicella. To continue treatment, and add wine p. r. n.

17th.—Mother reports that there has been less suffering from the dyspnœa though the night than during yesterday. Patient is sitting up. Expression of countenance better. Condition of

mouth but little changed from last report. Can nurse and swallow with much greater ease. Skin cool. Pulse 144.

At 11, A.M., Dr. D. H. Storer saw the case, and at 3½, P.M., Dr. Stearns. Appearances the same generally, but the exudation is fast disappearing. A quantity of the secretion was examined microscopically by Dr. Ellis, who reports nothing peculiar.

18th.—Throat almost entirely free from exudation. Expression of countenance natural. Passed a very comfortable night, requiring but little attention. Is very hungry and nurses easily. Omit washing the throat with the sol. argent. for the present, but continue other treatment.

19th.—Doing well. Throat well, except two patches on left arch of the palate near the tonsil, which look like canker. Has occasional attacks of dyspnoea when asleep. To have pulv. ipecac. p. r. n. Continue other treatment.

20th.—But one patch of the exudation left. The throat is full of flaky, white substance. Could not nurse yesterday, and had a good deal of trouble in breathing. To renew sol. argent. nit. Continue other treatment.

21st.—Has had no trouble since application of solution to throat. Looks well, nurses well, and has no trouble in respiration. Throat, so far as can be seen, free from exudation and natural in color. Discontinued visits, with directions to use the wash as occasion might require, and continue the other treatment for three or four days.

### Bibliographical Notices.

*A Treatise on Human Physiology; designed for the use of Students and Practitioners of Medicine.* By JOHN C. DALTON, JR., M.D., Professor of Physiology and Microscopic Anatomy in the College of Physicians and Surgeons, New York, &c. &c. Second Edition, revised and enlarged. With two hundred and seventy-one Illustrations. 8vo. Philadelphia: Blanchard & Lea.

DR. DALTON needs no word of praise from us. He is universally recognized as among the first, if not the very first, of American physiologists now living. The first edition of his admirable work appeared but two years since, and the advance of science, his own original views and experiments, together with a desire to supply what he considered some deficiencies in the first edition, have already made the present one a necessity, and it will no doubt be even more eagerly sought for than the first. That it is not merely a reprint, will be seen from the author's statement of the following principal additions and alterations which he has made:—

“First, the introduction of an entire chapter devoted to the consideration of the *Special Senses*, which were only incidentally treated of in the former edition.

“Second, the re-arrangement of the chapter on the *Cranial Nerves*,



and the introduction of some new views and facts in regard to their physiology.

"Third, an account of some new experiments, original with the author, relating to the function of the *Cerebellum*, and the conclusions to which they lead.

"Fourth, certain considerations respecting the general properties of *Sensation* and *Motion*, as resident in the nervous system, which are important as an introduction to the more detailed study of these functions.

"Fifth, the introduction of a chapter on *Imbibition* and *Exhalation*, and the functions of the *Lymphatic System*; including the study of endosmosis and exosmosis, and their mode of action in the animal frame, the experiments of Dutrochet, Chevreuil, Gosselin, Matteucci, and others on this subject, the constitution and circulation of the lymph and chyle, and, finally, a quantitative estimate of the entire processes of exudation and re-absorption, as taking place in the living body.

"Additions have also been made in various parts, to the chapters on Secretion, Excretion, the Circulation, and the Functions of the Digestive Apparatus. In every instance these alterations have been incorporated with the text in such a manner as to avoid, so far as possible, unnecessarily increasing the size of the book.

"Twenty-two new and original illustrations have been introduced, of which five replace others in the former edition, which were regarded as imperfect, either in design or execution. The remaining seventeen are additional."

The present, like the first edition, is printed in the highest style of the printer's art, and the illustrations are truly admirable for their clearness in expressing exactly what their author intended. It is for sale by Ticknor & Fields.

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*Theory and Practice of the Movement Cure; or the Treatment of Lateral Curvature of the Spine; Paralysis, Indigestion, Constipation, Consumption; Angular Curvatures, and other Deformities; Diseases incident to Women, Derangements of the Nervous System, and other Chronic Affections, by the Swedish System of Localized Movements.* By CHARLES FAYETTE TAYLOR, M.D. With 71 Illustrations. 12mo. Philadelphia: Lindsay & Blakiston. 1861.

THIS little book is the precursor of a larger one which the author hopes hereafter to lay before the public. We have taken it up, we admit, with some degree of prejudice against it, as advocating one of the systems of special practice which experience has shown so generally disappear after a short run, without giving any permanent benefit to mankind. The work, however, is modestly written, and by an educated man, apparently capable of appreciating the class of cases to which this system of passive motion is properly applicable. As one of the means which may stimulate nervous and muscular energies which are dormant from feebleness of will or the debility consequent to protracted illness, we can conceive of its answering an excellent purpose, in the hands of an *educated physician*. No doubt many *bed cases* would be greatly helped if not cured by it. In the hands of an ignorant, self-conceited pretender it would be likely to do quite as much harm as good. We sincerely hope that it may be kept out of the hands of this last class, who have done so much heretofore to dis-

gust reasonable people with the very name of anything which claims to be a special curative agent. It is quite impossible for physicians in general practice to apply such treatment with anything like a satisfactory thoroughness; and it is seldom that they can turn to any one whom they can trust to do it for them. From the general tone and character of this book, we should think any case, specially suitable for the treatment, might be safely placed in the hands of the author. The book is neatly printed, and the illustrations are all that the subject requires.

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*Infant Feeding and its Influence on Life; or, the Causes and Prevention of Infant Mortality.* By C. H. F. ROUTH, M.D., &c. &c., Physician to the Samaritan Free Hospital for Women and Children, &c. &c. Pp. 379, 16mo. London: John Churchill. 1860.

ONE of those compact, practical, *nutritious* English books that a physician is glad to get hold of. It is full of valuable information, and abounds with statistics which the author understands the fair and proper use of. Although a small book, it is evidently the condensed result of a vast amount of faithful labor. The subject of which it treats can hardly be overestimated in its importance, and we look upon this contribution to its elucidation as one of the very best which has issued from the press. We hope soon to see it in American dress; and we will add, we should be glad to see such and all English medical books worth re-publishing, re-printed with the same regard to the pecuniary advantage of the author which has been shown by some of our American publishers of more exclusively literary works. We never open an American re-print of an English medical work without a feeling that the publishers are guilty of little short of absolute piracy in thus coining money from the unrequited labors of our brethren on the other side of the water. The practice is entirely unworthy of the encouragement of a noble and liberal profession, such as ours ought to be. The publisher who initiates in medical literature the practice which Messrs. Ticknor & Fields, of this city, have so honorably pursued in other departments, would deserve and receive the lasting honor of the whole profession.

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*Seventh Report to the General Assembly of Rhode Island, relating to the Registry and Returns of Births, Marriages and Deaths in the State, for the year ending December 31, 1859.* Prepared, under the direction of JOHN R. BARTLETT, Secretary of State, by EDWARD A. CRANE, M.D. Providence: 1860. Pp. 96.

THE population of Rhode Island, as presented approximatively in 1860, is 174,624, the census having given, in 1850, 147,545, making the increase in the State, for the past ten years, 27,079.

The number of births recorded for the year 1859, including still-born, was 4,554, being an excess over those of the preceding year of 237. Of the whole number, not quite one half were of foreign parentage. Only 73 were of colored parents.

As has been invariably the case, says the reporter, there were more births in the *last* than in the *first* six months of the year. This, it will be remembered, was noticed in the Registrar's Report for South Carolina, the greatest fecundity there being in September and December, while the fewest births took place in January and February. It is a



singular circumstance that in England the excess is in the first half of the year. This difference might be partly attributable to a difference in the customs of the two countries, as to the time when marriages are more likely to be consummated, were it not that such does not exist; for it appears that the largest number of marriages are solemnized in England, as in all parts of this country having a registration system, in the last quarter of the year.

The excess of male births falls slightly below that of other States, a fact, as stated in the Report, difficult to be accounted for. The greatest excess was in February, conception having taken place in April; and the least in May. The result of years of observation may possibly throw some light upon a question which has much puzzled physiologists, and that is, the causes which influence the predominance of one over the other sex. If season have such influence, careful and extended observation cannot fail to detect it. We are inclined, however, to attribute it to widely different causes, not denying the possibility that any external influence may exert an effect. So long as this question belongs to the domain of the purest speculation, we may be permitted to express an opinion to which we have been inclined—a result of long observation—and that is, that the sex of the offspring depends upon the predominance of procreative power in one or the other of the parents; in other words, *the parent possessing the greatest procreative power will show it pretty certainly in the opposite sex of the offspring*. If we take, for example, a family in which girls predominate largely, it will generally be noticed that the father is more vigorous, so far as one can judge from external signs, than the mother, and *vice versa*. This superior vital power may be dependent upon the relative youth or health of one or the other, upon season, temperament, and other causes. Instead, then, of the seniority of one or the other parent acting directly in the production of a child of the corresponding sex, it may be said that the sex in such a case is due to the greater vital or procreative power of the younger or more vigorous. Of course, as we have before said, every hypothesis, thus far, is based upon speculation, or we should not have ventured to express an opinion on a subject which is probably destined to remain involved in obscurity.

The number of twin births was 59, or 1 in 85. This is a higher rate than was reported in England in 1846, that being 1 in 91. In France the proportion is 1 in 110. Plurality cases seem to have been most frequent among the Irish portion of the population. Two cases of triplets are recorded.

The number of marriages for 1859, was 1,672, being an increase of 234 over the number recorded in the preceding year. This result the Registrar attributes partly to the more complete returns, due to the greater efficiency of the registration system, and also to the increased general prosperity over that of the two preceding years. The largest number of marriages took place during the last quarter of the year, as we have already had occasion to remark. With regard to the ages at which marriages were consummated, if it be true, and we are not inclined to doubt it, that this condition is entered the earliest in places where the necessities of life are most readily obtained, and the individual is soonest able to become self-supporting, Rhode Island must be peculiarly favored, as more persons are married under 20, and fewer between 20 and 30, than in England or Massachusetts.

Only twenty marriages are recorded between persons of color. Marriage between whites and negroes is contrary to law, and as the penalty is high to all parties concerned, it rarely takes place.

The whole number of deaths was 2,270, this being a smaller number than has been reported since 1856, a result attributable partly at least to the non-prevalence of diseases of the zymotic class. In Bristol County, however, the zymoses were uncommonly prevalent, rendering the rate of mortality considerably higher in this than in other parts of the State. The least mortality was in the months of June and October, and the greatest in August; in the latter month, diseases of the bowels prevailing, as in other parts of the country. The mortality seems to have been comparatively large among the aged, and small among children—twenty-five per cent only of deaths in Newport County being of persons under 5 years of age, while in the previous year it was no less than forty per cent.

We have only space to add that the classification of the causes of death is, we are convinced, the best, on the whole, that can be adopted; it being similar to that recommended by the American Medical Association, which is a modification of that of Dr. Farr. This divides the causes generally into the *zymotic* and *sporadic*, these being again subdivided.

The report is most complete, showing the evidence of much care and labor, and affords additional evidence of the advance that has recently been made in this country in this department of statistics.

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*Diphtheria; its Nature and Treatment, with an account of the History of its prevalence in various Countries.* By DANIEL DENISON SLADE, M.D. Being the Dissertation to which the Fiske Fund Prize was awarded June 11, 1860. 8vo., pp. 85. Philadelphia: Blanchard & Lea. 1861.

THIS is a re-print of Dr. Slade's admirable Essay, as it appeared in the *American Journal of the Medical Sciences*. It is published at the express request of the Trustees of the Fiske Fund, "believing that it contained a full and accurate résumé of what is known concerning a disease which is now attracting universal attention," and it will be found to come fully up to the estimate of the Committee.

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## Medical Reports from the Mass. General Hospital.

PREPARED BY ROBERT WARE, M.D.

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FIBROUS TUMOR OF THE UTERUS, WITH ANTE-VERSION. (Under the care of Dr. MINOT.)—Anne Q., 30 years, married, entered Sept. 26th, 1860. Confined, with a stillborn child, in January, 1859. General health good till since a miscarriage, two months since. Began to suffer with severe pain in back and limbs, preventing her from standing upright; these came on in paroxysms, would cease for a time, and then come on again suddenly, and confine her to her bed. Was free for some time till 22d inst., since which time has suffered much; has also attacks of palpitation and dyspnoea; costive, poor appetite, and pain across lower abdomen. Catamenia regular, and now present. Above and



behind pubes, a little to the right of the median line, is a hard, rather irregular, roundish tumor, extending downwards to the right side, not tender; micturition free. Patient states that this was noticed during her first pregnancy, and has not altered in size since then. On examination, per vaginam, the cervix uteri was felt directly behind the pubes, extending completely across the vagina, the os being directed backward; motion of the cervix moved the external tumor. On drawing the cervix forward, by hooking the finger behind, thus remedying the anteversion of the uterus, the tumor disappeared. She was ordered rest, with a pill of *nux vomica* and *colocynth*, occasional opiates, and rapidly improved in general health.

Oct. 3d.—She sat up all day. Examination showed the uterus to be in the same position as before, and through the rectum a smooth projection, about the size of a chestnut, was felt, extending from the fundus of the uterus. She was much benefited by wearing an abdominal supporter, and was discharged, Oct. 17th, "much relieved."

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BRIGHT'S DISEASE; DEATH; AUTOPSY. (Dr. MINOT.)—Gustav. O., 50 years, a chemist, married, a native of Saxony, and resident at Manchester, N. H., entered August 3d, 1860. Patient states that his health has always been good till within two years; he never had rheumatism, and there is no hereditary tendency to cardiac disease. Two years since, he found that any unusual exertion brought on a palpitation of the heart, and this gradually increased till even mental excitement would cause it; there was no dyspnœa and no œdema. About two months ago he began to notice that he was unable to walk up stairs without increasing the palpitation and causing some dyspnœa; and, after an attack of "dysentery" four weeks since, œdema of the feet and ankles appeared, and has continued till now.

On entrance, is still able to walk out of doors, but has considerable œdema of legs at night; appetite good; bowels regular; urine, on examination, found natural in quantity, high colored, specific gravity 1.016, acid, and containing no albumen; sleeps poorly because of dyspnœa when lying down; dulness on percussion at base of right back, and absence of respiratory murmur below the angle of the right scapula; murmur feeble between the angle and spine of the scapula and normal above the spine, but feeble at the base of the right chest in front; the action of the heart is feeble, rapid and irregular; pulse 120; tongue clean. R. *Pulv. digitalis*, gr. ss.; *colchici semin.*, gr. i.; *sodæ bicarb.*, gr. i. M. In pill three times a day. Apply tincture of iodine to the right back.

He had more comfortable nights after entrance, with the exception of copious sweating; some œdema of the eyelids was noticed on the 10th, when the pupils were slightly dilated, and the pill was omitted. He was ordered, on the 11th, three grains of the iodide of potassium with two drachms of the sweet spirits of nitre, three times in the day, and six grains of the oxide of zinc were given at night.

13th.—Very comfortable; sweats less; quantity of urine increased; œdema diminished; has had, for some years, a defect in the vision of the right eye, caused, as he supposes, by the use of the microscope, and since entrance has been troubled by *muscæ volitantes* in the day time, and flashes of light at night. His symptoms improved very rapidly, and he left the Hospital, August 20th, "much relieved."

Soon after leaving the Hospital, his dyspnœa returned; he grew

rapidly worse, and re-entered Sept. 6th. The dyspnœa and general prostration were very marked; skin cool and damp; mind clear; pulse could not be counted; abdomen much enlarged, and generally resonant; the outline of the liver could be traced nearly to the umbilicus; urine scanty. He drank a bottle of Hock wine in the night, and got some sleep after an opiate.

Sept. 7th.—His condition is about the same; substitute brandy for the wine, give him an enema, and let him have beef-tea for diet.

8th.—Chest extremely resonant, especially at both backs; respiratory murmur everywhere strong; somewhat delirious during visit; dejection from enema. R. Pil. assafoetidæ, gr. iij., every three hours. R. Spt. ether. nitros., ℥ij., every two hours.

9th.—Has been delirious most of the time, but was quiet and drowsy during a part of the night; no dejection; urine rather more free; pulse very rapid, irregular and feeble; great palpitation of the heart—no souffle has been or can be detected; has taken but little food; skin hot; abdomen tympanitic. R. Hydrarg. submur. et pulv. jalap., aa gr. x. In two hours, R. Ol. ricini, ℥ij. After the operation of the medicine, R. Tinct. verat. virid., gtt. vi.

10th.—He slept for an hour and a half this morning, but with that exception was very delirious and restless; had one free dejection this morning; pulse as yesterday; skin cool; no cough; has taken about half a pint of beef-tea and the same quantity of brandy. Continue the pill of assafoetida, and apply a blister four inches square to the left breast.

11th.—He has been more quiet, and has had several hours sleep; pulse as before; tongue has a thin, brown, moist coat; respiration 28, and the breath has a peculiar offensive, spirituous odor.

12th.—General condition about the same; urine very abundant; tongue dry and brown; pulse cannot be counted. He died within twenty-four hours of the visit.

*Autopsy*, by Dr. Ellis. Half a pint of serum was found in the right pleural cavity, and the lower lobes of both lungs were very œdematous; the heart was somewhat hypertrophied; no valvular disease, except some yellow opacity of the mitral valve; the liver was fatty, and its external surface was finely granular; the kidneys were congested, but smooth externally; their appearance on section, though not perfectly healthy, could hardly be said to indicate any particular disease, but, under the microscope, the tubuli were found to contain much opaque material and fat globules; there was a small fibroid growth beneath the mucous membrane of the stomach; other organs not remarkable. Examination of the urine showed the presence of bile and a little albumen, but no casts of the tubuli were found.

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SCIATICA—SUBCUTANEOUS INJECTIONS. (Dr. MINOT.)—John H., 49 years, married, a farmer, a native and resident of Ipswich, entered August 29th, 1860. Patient states that he has no hereditary tendency to rheumatism, and has never had rheumatic fever, but has suffered from supposed rheumatic pain. In April he was attacked, without known cause, with violent pain in the lumbar region, which soon extended into the hips and thence down the thighs to the knees. This is at times very severe, and is not regularly intermittent. He is in the habit of taking opiates. The bowels are costive, but with the exception of this pain his health is very good; there is some tenderness on



pressure behind the trochanters. He was ordered "house diet," three grains of sulphate of quinine were given every three hours, and a small blister was applied behind each trochanter.

This treatment gave very little relief, and the iodide of potassium, in the dose of five grains three times a day, was substituted for the quinine on the 5th.

Sept. 7th.—Three fourths of a drachm of the "solution of the bimeconate of morphia" were injected beneath the skin behind the left trochanter yesterday; the operation caused some drowsiness, and was followed by immediate relief of the pain; this relief has continued, with some slight remissions; no constipation.

8th.—The pain has returned with its usual severity; the injection was repeated this morning, in the same place.

9th.—He was free from pain during yesterday, but it returned in the evening and prevented sleep. Omit the iodide. R. Ferri et manganes. carb. sacch., gr. x., three times a day. The treatment by the injections of morphia was continued till the 17th; the amount injected was increased to one drachm of the solution, without causing narcotism; relief was obtained, but it was not permanent.

17th.—The morphia was injected this morning, and at 8½, P.M., one fourth of a drachm of a solution of aconite (gr. i. to ʒi.) was injected behind the right trochanter; the pupils were not affected, and he got no relief till the morphia was used later in the evening.

18th.—Half a drachm of the solution of aconitine was injected at noon, and again in the evening; no effect from the first, but relief followed the second injection; the pain returned at 6, A.M., of the 19th, and was quite severe at the visit of that day (10, A.M.), when one drachm of the solution of aconitine was injected. Relief was not obtained; the morphine was used in the evening, and he had a comfortable night. After the 20th, the aconitine was used altogether; it appeared to give some relief, and the largest dose given caused no affection of the pupils or vision; it was only used once in twenty-four hours after the 23d. The patient appeared to be improving slightly, but left the Hospital without permission, October 1st.

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## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

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BOSTON: THURSDAY, MARCH 28, 1861.

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CURE OF RHEUMATISM BY LAYING ON OF HANDS.—As this method of treating all sorts of chronic complaints is somewhat in vogue here at the present time, and is withal somewhat expensive, we propose to enlighten our readers as to one of its modes of application, hoping that they may derive some profit therefrom. Our information is derived from the patient himself, who fully appreciates the *power* of such "gentle strokes of art." He is a man in very moderate circumstances, dependent on his daily labor for the support of himself and family, and for the last four months has been incapacitated for work by subacute rheumatism, which has been just severe enough to prevent his applying himself to his usual occupation, without confining him to his bed

or even to the house. Such patients, we all know, are very apt to keep along in the same state for a longer or shorter period, trying one remedy after another recommended by their friends, and rubbing off their cuticle by all sorts of stimulating lotions, without pursuing any very definite line of treatment, hoping from day to day that they will soon get better, and very often not applying to a physician at all; the disease being allowed to run itself out or yield to some temporary alleviation. Such a case was that of our patient, who had not consulted us in the present instance. At the earnest instigation of his friends (and it is curious to see how eager people are to subject their friends to such experiments), although against his better judgment, he was induced to make a call on the *soi-disant* Doctor, whose wonderful powers of manipulation fill the air with daily reports, but not without first providing himself with the liberal fee of five dollars—five times as much as we have usually charged him for a visit at his own house, which is at least a mile from ours. Dismal were the forebodings of his better half at the prospect before her, as she listened with awe not unmingled with apprehension, in an adjoining apartment, to the turbulent sounds which reached her ears from the room in which the hands were laid on. The shouts of imperative command to do this and that—the sharp, quick claps from the resounding palms of the gifted wonder-worker within, might well appal the weak or make the strongest tremble; as for its effects on the delicate nerves of invalids, we can well believe they might stimulate the feeblest to efforts that their most extravagant imaginations had not before suggested the possibility of. But to our case.

The particular parts in which rheumatism had fastened itself in our patient were the loins and heels. Across the former he had applied a plaster. On entering the operating room, he was stripped and laid on a couch with his face downward. Immediately the plaster was torn off and thrown into the fire, to prevent the possibility of a re-application. Then came the laying on of hands! This consisted in a series of most forcible compressions with both fists, emphasized by the whole weight of the operator, varied by sharp slaps upon the dorsal region (making the patient wince with pain, and recalling pungent reminiscences of school-boy days), and blows upon the soles of the feet in real bastinado style. "There," said the magician, "you will feel no more rheumatism!" "Well," said our startled, but not easily convinced friend, "I guess it will take more than one visit to do that." "Oh, I should be very happy to have a friendly call, but you will need no more treatment," said the doctor. To this our patient dissented, saying he didn't think the treatment would cure him. "Why, you haven't got no faith!" was the rejoinder. "You are cured." So saying, he hustled him into the adjoining apartment, throwing his clothes in after him, to make room for the next attendant on his marvelous powers. We forgot to mention the piles of eye-glasses and spectacles, and the heaps of crutches and canes, to which the layer-on of hands pointed to enforce his arguments. "See," said he, "all these things which my patients have left behind them." "Yes," was the reply, "I see, but they don't prove anything, except that they are there. It is no evidence that they were not needed any longer;" and we will add, it was no evidence that they were ever used, except to play the part they were then playing, that of arguments to people shallow enough not to see through such a flimsy trick of the trade. Our readers



will perhaps be surprised to know that our patient, notwithstanding such powerful counter-irritation (and irritation), making his dermal surface of the most lively red, as his wife testifies, was not cured of his rheumatism, nor even benefited. Nay, he even looks back with some regret to the loss of his five dollars and his plaster. We have heard of other equally triumphant results of this treatment, which, we are told, is making a clean sweep of all the chronic cases in the land. Such is laying on of hands here in Boston, in the nineteenth century!

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LIBERAL GIFT TO THE BOSTON SOCIETY OF NATURAL HISTORY.—We are pleased to place on record the donation to the Boston Society of Natural History, of property valued at thirty thousand dollars, by Dr. William J. Walker, of this city. This Society has always been managed on the most liberal principles; from the first it has numbered among its most active members representatives of the medical profession, and we are glad that one of the same profession has thus liberally recognized its claims to encouragement and support. Nothing but want of means has prevented this Society from opening the doors of its Museum gratuitously to the public every week day, as it does now on Wednesdays. Should the long-wished-for grant of land in the Back Bay territory be made by the State, the Society is prepared at once to commence the erection of a suitable building for their library and museum, for which their present accommodations are quite insufficient. Such a donation would be in keeping with the liberal spirit which our State has always shown towards institutions of learning and popular education, and would enable the Natural History Society to put up a structure which would be an ornament to the city, and give a new impulse to the study of one of the most delightful of sciences among our people.

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EDITORIAL CHANGES AND REVERSES.—Dr. Anthony A. Peniston is announced as Editor of the *New Orleans Medical News and Hospital Gazette*, in place of Dr. D. Warren Brickell, who retires from the field. We regret that in taking leave of his readers he is obliged to make such a disheartening statement as this:—"We have labored five long years without one cent of reward, and now to our ledger there is, independent of all advance payments for the coming volume, an indebtedness of over \$5,000!!" We sincerely hope, for the credit of the profession, that his successor may be able to show a fairer page of obligations honorably met.

The *Louisville Monthly Medical News* expired with the last year, for want of proper support. The Editor, in his Valedictory, says to delinquent subscribers, "Gentlemen, your kindness has been our ruin—your favors, our destruction—your smiles, our tears—your approval, our bankruptcy."

The *Georgia Medical and Surgical Encyclopædia* closed a brief existence of eight months, with the year 1860. The enterprise failed for want of that support which is the *pabulum scientiæ* quite as much as the sinews of war.

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CASE OF TRIPLETS. *Messrs. Editors*,—If you deem it a matter sufficiently rare to interest the readers of the JOURNAL, you may announce the birth of triplets, two daughters and a son, on the 17th inst., in our village. Period of ges-

tation, seven and a half months. Mother and children apparently doing well at the present date.

Yours respectfully,

St. Albans, Vt., March 21st, 1861.

J. L. CHANDLER.

**MEDICAL COMMENCEMENTS.**—The commencement exercises of Starling Medical College took place on the evening of the 28th of February, in the Westminster Church, Columbus, Ohio. The Annual Address was delivered by Dr. James Hogue; the Valedictory by Prof. T. G. Wormley, M.D. The degree of Doctor in Medicine was conferred on 16 gentlemen.—The public commencement of the Jefferson Medical College of Philadelphia was held on the 9th of March, 1861, when the degree of Doctor of Medicine was conferred on 187 graduates by the Hon. Edward King, LL.D., President of the Institution; after which a Valedictory Address to the graduates was delivered by Prof. Mitchell.

**MORTALITY OF MONTREAL.**—The last number of the *British American Journal*, published at Montreal, in an interesting article on the vital statistics of that city, states that the mortality there for the year 1860 was 3,174 in a population of 101,602—being a death proportion of 1 to every 32.01 inhabitants, or a ratio of 3.12 per cent. This ratio, however, it is stated, should be diminished on account of quite a number of the burials in the city being of persons who die in the adjoining villages. This is a great improvement in the sanitary condition of Montreal, as it is further stated that in 1846 the mortality was 1 to every 23.60 inhabitants, or 4.23 per cent.; and in 1836, 1 to every 19, or 5.26 per cent.

### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MARCH 23d, 1861.

#### DEATHS.

	Males.	Females	Total.
Deaths during the week, . . . . .	38	43	81
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	39.5	35.5	75.0
Average corrected to increased population, . . . . .	..	..	83.7
Deaths of persons above 90, . . . . .	..	1	1

#### Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Varola.	Dysentery.	Typ. Fev.	Diphtheria.
13	2	4	5	0	0	1	0	0

### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	30.003	Highest point of Thermometer, . . . . .	39°
Highest point of Barometer, . . . . .	30.440	Lowest point of Thermometer, . . . . .	2°
Lowest point of Barometer, . . . . .	29.336	General direction of Wind, . . . . .	N. & N.E.
Mean Temperature, . . . . .	26° 3	Am't of Rain (in inches) melted snow, . . . . .	4.750

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 585.

	BAROMETER.				THERMOMETER.				SNOW & RAIN.		Mean Amount of Cloud. 0 to 10.
	7 A.M.	2 P.M.	9 P.M.	Mean Height.	Lowest Point.	Highest Point.	7 AM	2 PM	9 PM	Mean Height.	Mean suc.
Monday, March 11,	29.71	29.43	29.29				26	51	44		
Tuesday, " 12,	29.20	29.34	29.53				47	55	43		
Wednesday, " 13,	29.68	29.73	29.80				23	30	26		
Thursday, " 14,	29.79	29.68	29.60				20	37	29		
Friday, " 15,	29.42	29.29	29.24	29.57	29.89	29.20	31	48	40	34.66	
Saturday, " 16,	29.82	29.37	29.54				34	48	34		0.00
Sunday, " 17,	29.85	29.89	29.85				19	24	19		

**BOOKS RECEIVED.**—Tenth Annual Report of the New York Asylum for Idiots.—Prof. Mitchell's Farewell Address to the Graduating Class of Jefferson Medical College, Philadelphia.

**DEATHS IN BOSTON** for the week ending Saturday noon, March 23d, 81. Males, 38—Females, 43.—Apoplexy, 4—disease of the bowels, 1—inflammation of the bowels, 2—congestion of the brain, 1—disease of the brain, 4—bronchitis, 4—cancer, 4—consumption, 13—croup, 2—convulsions, 2—cyanosis, 1—diarrhœa, 1—dropsy, 2—dropsy of the brain, 4—dysentery, 1—erysipelas, 1—scarlet fever, 4—gastritis, 1—disease of the heart, 1—homicide, 2—infantile disease, 1—intemperance, 3—congestion of the lungs, 2—inflammation of the lungs, 5—marasmus, 2—old age, 2—peritonitis, 2—pleurisy, 1—premature birth, 1—pyæmia, 1—suicide, 1—unknown, 3—whooping cough, 2.

Under 5 years of age, 30—between 5 and 20 years, 3—between 20 and 40 years, 25—between 40 and 60 years, 13—above 60 years, 10. Born in the United States, 51—Ireland, 22—other places, 8.



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ON A CASE OF DIABETES MELLITUS, TREATED BY DR. CHAMPLIN'S MODE, WITH REMARKABLE RESULTS.

BY AUGUSTUS A. HAYES, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

THE subject of disease in this case was a highly respectable, active gentleman, of middle age and full physical development. His own account follows:—

“Last May (1859), I had a severe attack of diabetes, the quantity of urine passed in twenty-four hours varying from five to eight quarts; specific gravity, 1.044 to 1.052. I was so much reduced, physically, by the 1st of July, that my physicians pronounced the case incurable. Dr. Meigs, of Philadelphia, recommended a trial of Dr. Champlin's bran cake (*Braithwaite's Retrospect*, No. 35, page 303), prepared from washed bran of wheat, ground fine, and made into a cake with eggs, butter and milk, as part of my diet.

“This course at once checked the disease, and since the 1st of August I have passed one quart, eleven ounces of urine, reduced sometimes to one pint, four ounces, per diem; specific gravity, 1.019 to 1.028.”

A correspondence was commenced with this gentleman, and in reply to my questions further details were given, and six specimens of his urine, weighing about four ounces each, were carefully sealed, and sent to me in perfect condition, for chemical analysis.

“I voided during twenty-four hours (7, A.M. to 7, A.M.) 1 pint, 7½ ounces; it is seldom that more than two pints are passed, and for the last thirteen days the average is 1 pint, 8 ounces. The greatest quantity voided in twenty-four hours, since I have been eating bran cake, is 3 pints, 13 ounces, and that was only on one day, when the bran cake had been omitted for ten days. Four or five opium pills each day had been taken for three months, but now for nearly three weeks no opium has been required. On the day after passing the increased amount of urine, I re-commenced the use of bran cake, and the bulk was reduced to 1 pint, 6 ounces; specific gravity, 1.022. Both strength and general health have improved.”

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As the details of daily observations would occupy some space, I have condensed them, by averaging the volume and specific gravity of the urine, and dividing into periods the time; in order to exhibit the influence of the bran cake, which formed a large part of the food taken at some meals, but was omitted on some days.

Before adopting the bran cake as a remedy, there are observations on the twelve preceding days, including the 7th of July, and the average quantity of urine passed daily was *nine pounds and six fluid ounces by measure, the specific gravity being a mean of 1.045.*

On the evening of the 7th of July, the first portion of bran cake was eaten, and on the 8th, after the lapse of only twenty-four hours, the marked effect was, a reduction of the volume of the excretion to only *two pounds, eight fluid ounces, the specific gravity being 1.030!*

During the following eleven days, the average amount of urine passed was two pounds, two fluid ounces, daily; specific gravity, 1.029. About thirty-six days ensuing were spent near the sea-shore, and no observations are recorded; but the beneficial effect of change and climate was rendered evident in increased strength.

On the 26th of August, the record indicates that the progress of the disease had been checked, and for six days, including the 31st, the volume of urine passed was two pounds, one and one half fluid ounces; mean specific gravity, 1.026.

In the month of September, a surgical operation, unconnected with the disease, was performed, and depression following, the patient remained in bed; the bran cake was not continuously used as food for eleven days. The average daily amount of urine for the whole month was two pounds, one and one tenth ounces.

About the 22d of September, being much improved in health, various articles of farinaceous food were taken, with beverages.

During the month of October, observations were continued on twenty-six days, and the mean volume of urine passed was *one pound, twelve fluid ounces; specific gravity, 1.281.*

The variations in quantity on different days of this and the preceding month, were not greater than we observe usually, where good health prevails.

On the 27th of October, my correspondent wrote, that he intended to state that his diet was not such as would be considered farinaceous. "I have not eaten any vegetables, excepting cabbage, beans and tomatoes two or three times, for three months. My diet is nearly all meat, for the bran cake is so tasteless I eat as little as possible of it, and then spread on butter to nearly the thickness of the cake. I also eat eggs freely, but avoid fruits and sugar."

Subsequently, I have learned that restoration to good health has followed, and that the patient is conducting his business travels, and is exposed to fatigue and irregularities, such as only persons enjoying good health could endure. He eats the bran cake



when any indication of disease appears, but at other times varied food, regularly or irregularly, without suffering.

The samples of urine received here, were carefully examined both as distinct specimens, and after being mixed in equal volumes, in order to increase the amount of fluid to be analyzed.

*Analytical Trial.*—(Sample No. 1.) Characters:—A clear fluid of the usual color of healthy urine, which had deposited a deep, nankin-colored precipitate as a fine powder. The fluid was decidedly acid, and when mixed with sulphuric acid in a diluted state, exhibited the darker brown tint ordinarily observed, when lithic acid is present. The deposit was lithate of soda, colored by the coloring matter of urine, and a small portion of phosphate of lime engaged with the lithate of soda, as is generally the case. Varied and numerous experiments demonstrated the absence of glucose or diabetic sugar, nor could any of that class of bodies be found. Specific gravity, 1.025 when voided. It was 1.038 at 60° Fah. In this connection, it may be stated that all the numbers representing the specific gravity as above given are doubtless erroneous in the same proportion; but as the additional amount of solid matter thus indicated, was present in the urine before the diet was changed, the relation relatively remains the same. In pursuing the inquiry into the chemical composition of the urine, it was found that the specimens differed no more than is usual in time divisions of that which is passed in twenty-four hours, and accordingly the analysis was performed on a mixed portion.

The first abnormal condition observed was that of an excessive amount of urea as a constituent. So large was the proportion of this body, that when pure concentrated nitric acid was added in quantity sufficient to form nitrate of urea, the bulky crystals produced in the lapse of an hour absorbed the fluid and permitted the vessel to be inverted without loss of its contents.

Urate of soda was present as an acid salt; the indications of free uric acid did not demonstrate its presence.

1000 parts, by weight, of the urine afforded solid matter, which, dried at 212° Fah., weighed 71.62 parts.

1000 parts, by weight, consisted of

Water obtained . . . . .	929.412
Urea . . . . .	52.000
Urate of soda . . . . .	1.650
Phosphoric acid . . . . .	3.617
Sulphuric acid . . . . .	2.884
Chlorine . . . . .	3.697
Soda and potash . . . . .	2.920
Lime and magnesia . . . . .	1.610
Undetermined animal extract . . . . .	2.210

Total . . . . .	1000.000
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70.588 parts of dry matter were obtained in the analysis; a mere trace of ammonia was detected, besides the bodies named. The animal extract was colored, freely soluble in water, which it

rendered consistent without being gummy, and it resembled generally the mixed product of the decomposition of gelatinous tissues by putrefaction. I have often found the same substance in urine containing urate of soda in excess of the normal amount.

In the case here presented, there are two features which are worthy the attention of the physiologist:—

1st. The extraordinary rapidity of action induced in the system by a substance (washed bran) in which chemists have not detected any active principle; resembling, in this respect, the influence of powerful medicaments, and yet, so far as is known, acting as an absorbent slowly.

2d. A chemical change in the nature of the constituents of the urine, denoting that disease in rapid progress was arrested, and the excretory matter (glucose) usually found, replaced by a substance of animal organic composition; indeed, most highly azotized.

The beneficial effects of Dr. Champlin's mode of treatment have been fully developed in this case, and if the hitherto incurable attacks of diabetes can be prevented by so simple means as he has pointed out, he has not only conferred a great boon on suffering humanity, but opened a new field of research to the pathologist and physiologist.

16 *Boylston Street, 5th March, 1861.*

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MESSRS. EDITORS,—To the above very important case, reported by the patient with unusual detail and accuracy, with the comments by Dr. Hayes, which he has furnished at my request, I would add, briefly, the following, which was treated by me at the Massachusetts General Hospital.

Yours, &c.

*Boston, March, 1861.*

AUGUSTUS A. GOULD.

J. G., plasterer, æt. 36. Jan. 14, 1860. Always well and hearty. A year ago noticed that he was very thirsty, had pains in loins on exercise, and restless nights. Mouth parched, skin dry, not perspiring on hard work; has lost much flesh and strength; drinks from one to two pailsful of water daily, and thinks he passes about the same quantity of light-colored urine; appetite ravenous.

He was put upon a diet of meat and ship bread, had a vapor bath twice a week, and sundry tonics and laxatives, as occasion required, were given. He generally sweat after bath, and the thirst was somewhat diminished. The report of Feb. 8th was, "drank O.xij. and passed about O.xij. of urine." On the 11th, it was stated that the urine gave a good deal of sugar; on the 22d, that he had drunk 7 quarts and passed 8 to 10 quarts; 28th, in bed, much disquieted, nausea, weakness of knees and pain in lumbar region; some difficulty of vision. March 12th, reports 6 quarts of urine in twenty-four hours; drink about the same; 16th, no marked change. 28th, urine nearly colorless, acid, sp. gr. 1.036; a small deposit of torula; sugar in tolerably large amount.

April 6th.—Began the bran cake, which he was to use exclu-



sively as a vegetable, with meat at pleasure. Urine, specific gravity, 1.036; quantity, 5 quarts. At the end of twenty-four hours, specific gravity, 1.030; quantity, 3 quarts; drank 3 quarts. April 16th.—Sugar, 4 per cent., or 301 grains to the pint.

A regular daily account of the drink and urine, with the specific gravity, was kept from April 6th to 28th. The card bearing the record of quantities was unfortunately lost; but the record states, in general, that the amount of drink and urine was nearly the same, and was usually 3 or 4 pints in twenty-four hours; on the last day it was reported  $1\frac{3}{4}$  quarts. The specific gravity for the five days previous to the diet averaged 1.034; for the next eight, 1.028; for the remaining fourteen, 1.033. The patient rarely rose in the night, there was no more than ordinary thirst, and he gained flesh and strength rapidly. After the first fortnight he was not overscrupulous about his diet, and was often known to partake of bread puddings and other tempting dishes. This, no doubt, accounts for the increased density of the urine at this latter period. At last he became so insubordinate that he was reprimanded, and absconded May 6th.

Incomplete as the case is, and unreliable as the patient was, the influence of the bran cake was very decided; and in connection with other reported cases, affords encouragement under this treatment, or treatment based upon the same principle.

#### SOME INQUIRIES INTO THE PATHOLOGICAL CONDITIONS OF THE CHEST THAT YIELD TYMPANITIC PERCUSSION SOUNDS.

BY D. D. HANSON, M.D., HARTFORD, CT.

[Communicated for the Boston Medical and Surgical Journal.]

THE question involved in these inquiries does not relate to the pathognomonic resonance of pneumothorax and pulmonary cavity, but to a more sharp and metallic percussion sound sometimes detected when symptoms of pneumonia, pleurisy, or both, are manifest. Whether such sounds can be communicated in any stage of these complaints, has not been so fully discussed as to give a well-defined conviction in the minds of the profession, and, when they occur in these complications, cannot fail to perplex and confuse the diagnosis. In giving the physical signs of these two diseases, standard authors teach us to expect dulness over the affected part, in pneumonia, which increases to complete flatness, as infiltration goes on, from partial to complete consolidation; in pleurisy, after effusion commences, the region occupied by the fluid yields the same dulness, increasing to complete deadness as the effusion advances. In the one case, the lung is presumed to become consolidated from infiltration within its tissues; in the other, the organ is supposed to collapse from the pressure of the effusion from without. In both cases, the percussion dulness advances to flatness, *pari passu*, with

the progress of the disease. How far these views are correct, and where important fallacies may occur, will appear, should it be found that, in the first stages of pneumonic and pleural effusions, in some positions of the patient, the percussion sound, instead of being more dull, is actually sharper and clearer. The following case illustrates this point.

Mr. Lamb, Main St., was found, Jan. 11, 1861, confined to his bed, having taken a chill six days previously, followed with febrile excitement, harassing but dry cough, and pain and oppression in chest; pulse 96; tongue covered with white coating. Over the lower posterior part of the right lung, a small space yields complete dulness on percussion; murmur over same region suppressed, but bronchial respiration not evidently present. The lower and anterior part of the left lung gives no murmur, but a *sharp, clear tympanitis, both in the horizontal and erect position*; posteriorly, the respiratory murmur is faintly audible, and resonance less sharp and dense. As this case advanced, and resolution established crepitation, this tympanitis declined to the normal resonance.

In this case we have lobular inflammation of the right lung in the second stage, and a milder but more extensive inflammation of the left, with partial infiltration. The *hepatization* in the right lung gives complete percussion deadness; the *partial* consolidation of the left yields a sharper and clearer resonance than in health. But it will be seen that the lung, when partially consolidated from any cause, will yield a denser and clearer sound in consequence.

Mr. Archibald, Queen St., in February, 1858, called me in haste, and informed me that, about five days previously, he was attacked with chills, soon followed by a piercing pain near the left nipple, with cough and marked febrile excitement. He lay supine and completely horizontal, not so much as a pillow or bolster beneath the head or shoulders; an approach to the sitting posture threatened asphyxia; respiration hurried and laborious, face bathed in perspiration, expression anxious, grayish-white coat on the tongue, pulse 120. The left thorax was found distended, painful to pressure, murmur suppressed, and *percussion yielded a dense, clear tympanitis from diaphragm to fifth rib*. This percussion resonance differs from that of pneumothorax, or flatulent stomach, as a chord of a viol, when tuned, differs from that of the same instrument when slackened.

Mr. Bonfrey, of Collinsville, Conn., was first attacked with rheumatism of the right leg, attended with extensive œdema and neuralgic pain. When this subsided, there resulted bronchial irritation and œdema of the left lung. Tonics and stimulants were followed by metastasis of the irritation to the limb again, with renewed violence. This demonstration was followed by œdema of the same lung, but no bronchitis. Sixteen days after this, Dec. 27, 1860, the following notes were entered: left thorax instead of deadness, as at previous date, gives a *loud and sharp percussion*



sound from diaphragm to nipple when recumbent ; when erect, a deadness over about three fourths of the same region. Same signs posteriorly, and for the first time he complains of a troublesome pleuritic pain and soreness over the affected part. Long inspiration gives ægophonic gurgling, but no crepitation.

Hardly a doubt can be entertained in regard to the existence of pleuritic effusion in these two cases, yet the tympanitis is not easily reconciled with that pathological condition by many who entertain the general opinion that the lung being wholly or in part submerged, proportionate collapse, yielding percussion deadness, must follow. It remains, therefore, to prove this idea incorrect, and the following simple fact is sufficient. The lungs in a healthy condition, with their appendages entire, forced under water, will not only not collapse, but, thus submerged, will buoy several pounds weight for hours, the truncated end of the trachea being free for the ready exit of latent air. This experiment must force upon us the conclusion that, in pleuritic effusions, when no force of compression is brought to bear upon the lung greater than the gravity of the fluid, collapse and consolidation of the organ does not take place. The superior gravity of the effusion brings it to the most dependent part, which is the posterior wall, when the patient is supine and horizontal, and to the diaphragm when erect. In the former position, the lung is floated to the opposing wall with a force of compression proportionate to the extent of the effusion. The latent air mechanically confined in the cells becomes thus condensed in the same ratio, and the most patent law of acoustics decrees that a sharper toned percussion sound must be expected. This was manifestly the condition in the two preceding cases. In the first, the effusion was so great that, in the erect posture, the fluid so elevated the lung as to close the main bronchial tubes and threaten asphyxia; in the latter, not sufficient for that result, but still enough to give a decided flatness on percussion, when resting on the diaphragm and displacing the lung.

Dr. Wood (*Practical Medicine*, Vol. II., p. 39) gives the following upon pleuritic effusion, bearing upon the question.

"Sometimes, when a small portion of the lung is in contact with the walls of the chest, while the rest is separated from them by effusion, a tympanitic sound is yielded on percussion, which might be mistaken as the sign of pneumothorax or pulmonary cavity.— (*Notta. Arch. Gen.*, 4e Sér., xxii., 437.)"

The difference between this tympanitis and that of pneumothorax and pulmonary cavity increases with the advance of the effusion, the sharp metallic sound being easily distinguished from the cavernous resonance of the latter conditions.

But Dr. Markham, of St. Mary's Hospital, reports the most satisfactory experiments bearing upon these sounds, and I hope I shall be pardoned for making liberal extracts. He says:—

"In the one case, the left lung was found reduced by the pressure

of pleuritic effusion to about one fourth or fifth of its natural size; its lower lobe being *completely*, and its upper lobe *partially* consolidated. In the other case, the *partial* consolidation was general throughout both lungs; it was caused by the effusion within them of the products of inflammation, excited by the rapid and extensive deposition of miliary tubercles. Now, when in these two cases the lungs, thus differently circumstanced as regards the nature of the disease affecting them, were removed from the bodies after death, placed side by side, and percussed, it was observed that the *partially* condensed upper lobe of the pleuritic case, and every part of the lungs invaded by inflammation in the other—especially the posterior parts, where the consolidation was most advanced, and the lungs contained the least amount of air—yielded a remarkably clear percussion sound, which, in both cases, as far as the ear could judge, was exactly alike in its characters.” After giving a differential description of this percussion sound, he proceeds:—

“The left side of the thorax of the patient attacked by the pleuritic effusion yielded, two days before her death, a completely dull percussion sound at every part; and the heart was found beating to the right of the sternum. To relieve the great difficulty of breathing, induced by this sudden and copious effusion of serum, a very fine trocar was introduced into the pleural cavity, and about twenty ounces of fluid withdrawn therefrom by the aid of an exhausting syringe. Great care was taken that no air entered into the pleura, and that none did, I am satisfied—having assisted at the operation. Temporary relief was thus afforded the patient; and now, immediately after the operation, on percussion beneath the clavicle, we found, instead of the completely dull percussion sound observed previously, a remarkably loud, clear, tympanitic sound—so marked, indeed, as to lead an observer to suppose that air had found its way into the chest. That there was no necessity for our thus calling in the presence of air to give reason for the sound, we had demonstrative proof after the patient’s death, when the body was examined. No air escaped from the pleura, but on puncturing the left thorax a large amount of fluid gushed forth, and when a certain amount had escaped, the partially condensed lung floated forward against the upper and anterior walls, and its percussion now, both within, and when removed from the thorax, yielded a character of percussion sound *exactly similar to that which it had offered during life*, after a portion of the pleuritic fluid had been withdrawn.”—(*Monthly Jour. Med. Science*, 1853, p. 173. Selected by Braithwaite, XXVIII., 88.)

The italics are Dr. Markham’s, and he concludes that Skoda’s assertion that a “partially condensed lung yields a clearer and more tympanitic percussion sound than a healthy inflated lung, is correct.”

From these facts, although we are not warranted in the attempt



to overthrow the conviction ripened by a succession of intelligent observations, that pneumonic and pleural effusions yield dullness on percussion, increasing to flatness with the progress of the mischief, yet it may be safely asserted that they are exceptions to the rule; and that the exceptions, thus pointed out, are quite as important as the rule itself, in arriving at an early and demonstrative diagnosis in pneumonia and pleurisy. Dr. Markham's concluding remarks are eminently practical, touching pneumonia:—

“In certain cases of pneumonia, *if not in all*, when the consolidation of the lung has reached a certain stage, *but not yet that of hepatization*, the percussion sound over the affected part, so far from being duller, is *actually clearer than natural*. The error of diagnosis into which a misinterpretation of this fact may lead the physician, is manifest enough; it may induce him at a critical period of the disease, viz., when the lung is on the eve of complete consolidation, to prognosticate a commencing return to its healthy condition.”

So in pleurisy, let the patient lie horizontal upon his back, and this percussion tympanitis will unerringly herald the first approach of effusion within the cavity, while the dullness and flatness linger to announce only the sorry fact of the partial or complete collapse and consolidation of the lung.

#### A SURGICAL CURIOSITY.

[Communicated for the Boston Medical and Surgical Journal.]

FEB. 19, 1861, I was requested to visit N. W., of A., who, I was informed, had been in extreme suffering for ten days, in consequence of some foreign body in his bladder. I found my patient to be a bachelor, aged about fifty years; and from him and his attending physician obtained the following history of his case. About ten days previous to my visit, he had introduced into his urethra a piece of a common tobacco pipe-stem, for the purpose of relieving a strangury, which, the patient said, he had frequently done before; and although he had attached to the end of the pipe a string, yet from some unexplained carelessness, it escaped from his hold, and from subsequent injudicious manipulation, it had found its way, with the pipe-stem, into the bladder.

The scrotum and penis were enormously enlarged, and their whole surfaces, as well as those of the adjacent parts, had become very much discolored: they were evidently infiltrated with urine, and from a minute opening near the perinæum there was a constant weeping of that fluid.

The pulse was feeble, and the patient was completely prostrated from the long-continued suffering he had undergone—he having resisted the oft-repeated recommendation of his medical adviser to send for counsel, in reference to an operation.

Upon introducing a sound into the bladder, the piece of crockery was detected, but appeared to be immovable; and as no other course appeared to be left, it was determined to subject him to the usual operation of lithotomy. With the assistance of Dr. Field of Bangor, and Dr. Bachus of Amherst, the patient was brought under the full influence of ether, and secured in the usual manner. The bladder was then reached by the median (Allerton's) operation, and upon the introduction of the finger, it was found that one end of the pipe-stem had penetrated the left side of the bladder to the extent, as I afterwards discovered, of two inches. Fearing that if I crushed the pipe, it might break outside of the coats of the bladder, beyond my reach, making the case a much more desperate one than it even then was, I concluded, at the risk of wounding the opposite side of the bladder, for the cyst was empty and contracted, to attempt to withdraw it entire. Holding the *stem* by a pair of slender ball forceps in one hand, I was enabled, by the alternate motion of that and the finger of my other hand, pressed against the inside of the bladder, to relieve the *stem* from its fixed position and remove it. It was of large size, being 1 1-4 inch in circumference, and 3 1-8 inches long.

I was surprised at the ample room which this new mode of operating afforded; and I have no doubt that a very large calculus could have been readily extracted. The infiltrated parts were scarified, and the false passage was traced to the middle of the urethral canal, the coats of which were found to be torn, and in a state of sphacelation. An elastic catheter was introduced, and intended to be kept in the bladder for some days, to prevent any accumulation of urine from taking place. The patient was then placed in bed with pillows under his knees, and an opiate given. From the wound in the left side of the bladder, and the probable escape of the urine into the peritoneal cavity, a favorable prognosis could hardly have been anticipated; but the result has shown us how wonderfully active the curative powers of Nature are in protecting the body from the complicated lesions of injuries, especially when assisted by judicious treatment. For this latter aid, the sole credit is due the attending physician, Dr. Bachus, who writes me that although much of the integuments of the scrotum and adjoining parts have sloughed off, yet the wound is granulating rapidly; the patient's general health is good; his appetite is keen; he is free from any constitutional irritation, and "his entire recovery is now beyond a doubt."

The singularity of this case is enhanced by the fact, that it is the second of the kind that has occurred in the same vicinity within a few years—Dr. Rich, of this city, having successfully extracted a leather string from the bladder of another bachelor, a few miles distant from the subject of this case; but whether this apparent enemy depends upon moral, *celestial* or physical *miasm*, we will leave for speculative philosophers to determine.

*Bangor, Me., March, 1861.*

DANIEL MCRUER, M.D.



## SINGULAR INJURY FROM A CIRCULAR SAW.

[Read before the Boston Society for Medical Improvement, March 14th, and communicated for the Boston Medical and Surgical Journal.]

By SAMUEL C. CABOT, M.D.

MR. TINKUM, 41 years of age, twelve years ago froze the surface of both eyes, when riding on a very cold day in an open sleigh. The sight of one of them was restored perfectly; the other, the left, was left with a central cicatrix on the cornea. Jan. 3d, while standing about twenty feet from a circular saw, which was cutting a piece of damp lumber, he was struck on the right side of the head by a piece of wood, thrown off by the saw, which measured 22 inches in length,  $3\frac{1}{2}$  inches wide at the butt, and tapered to a point. He was knocked senseless to the floor, and blood flowed from the nose, mouth and outer angle of the right eye in considerable quantity. Dr. John Flint saw him soon after the receipt of the injury, and could discover no wound, except what appeared to be a very trifling one at the outer corner of the right eye, within the commissure of the lids. After he recovered his senses, he had considerable pain in the right side of the head, and was unable to open his mouth. For some time he was in a depressed condition, and suffered severe paroxysms of pain in the right side of the head, which, however, gradually diminished in frequency and severity, as his general health and strength improved. A purulent discharge was observed to escape from the corner of the right eye, and that side of his head remained much swollen.

Dr. Flint called me to see him, Feb. 3d. I found a considerable swelling on the right side of his head, extending from the temple back to a point above the ear, where the prominence was quite marked and abrupt, and on pressing upon this prominence I thought I observed a slight yielding, and supposed that a portion of the skull had been fractured, and that it was being detached and in process of elimination. As his health was improving, and there seemed to be no immediate need for surgical interference, I advised to wait and allow more complete loosening to take place. On the 12th of February, I saw the patient again, with Dr. Flint, and on making an opening over the most prominent part of the tumor, above the ear, and introducing my finger, I felt what I at first supposed to be a piece of loose bone, but on pulling it out, which I did with some difficulty with a pair of long-jawed tooth forceps, I found it to be a piece of wood, and on following up with longer forceps, I continued to extract pieces from under the temporal muscle, and down under the zygomatic arch, until they amounted to what I here show. The largest piece measures 2 inches in circumference,  $1\frac{1}{2}$  inches in length, and  $\frac{5}{8}$  of an inch in its largest transverse diameter. I found that there was a hole through the outer wall of the orbit, at about the junction of the upper part of the orbital process of the malar bone and the lower part of the orbital process of the frontal bone, through which the wood

must have passed, and then impinging on the under side of the zygoma, it split in pieces, part going straight back behind and beyond the temporal muscle, and part turning down, and remaining behind the zygoma.

I think no one who had seen this man, would have imagined that it could be possible for such a large piece of wood to have got through what appeared so insignificant an opening as the external wound presented, and more especially, without crushing the eyeball in its passage. I should have sooner mentioned, that though the eye showed some inflammation of the iris to have occurred, as shown by an irregular pupil, and also some commencement of opacity of the lens, or of its capsule, still it was much less than one could have supposed possible from such an injury. Mr. T. could see somewhat with the injured eye, at the time of my operation upon him. The external shape and appearance of the ball did not show any mark of injury, except the apparently trifling opening between the ball and outer angle, through the conjunctiva. It seems strange that the wood did not pass down into, and through the orbit, and thence into the brain, instead of forcing its way through a strong bone, at an angle to its surface so acute as this seems to have been. It must be accounted for by the great velocity at which it was propelled. Mr. T. has entirely recovered from the effects of his injury, so far as pain and general symptoms are concerned, but his eye, I fear, will never be of any use to him; and there is still a slight discharge from the wound.

## Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

FEB. 25th.—*Diphtheria*. Dr. H. J. BIGELOW remarked that at a previous meeting of the Society he had commented upon the variety of lesion and tendency which had characterized the various epidemics of diphtheria as recorded by various writers. Among these are *endemia*, fatal and seemingly poisonous depression of the system, contagion, false membrane in the throat and elsewhere, and even rash. When an epidemic of this general type was known to prevail, he considered it fair to refer lighter cases of sore throat, &c., to the same prevailing influences, and for convenience to use a common name to group them, although the type might vary a little. On the other hand, if a precisely similar, but sporadic, case occurred when no epidemic prevailed, he should not so group it. As an instance in point, Dr. B. cited the case of a lady in Worcester, who, about eight years ago, died, immediately after nursing her child, from strangulation by a flap of false membrane in the larynx, as in the case of Dr. Adams, she having been out four days previously. This case he at the time considered to be one of adult croup. Dr. B. referred to his remarks before this Society about a year ago, suggesting that the type of croup, now not



unfrequently relieved and cured by tracheotomy, might prove to be of a different character from that, which, a few years back, proved so frequently fatal after operation.

JAN. 28th.—*Cerebral Symptoms following Indigestion.* Dr. MORLAND read the following account, furnished by Dr. J. D. MILLER, U. S. N., of the Navy Yard, Charlestown, Mass. The patient had formerly sustained a fracture of the skull, and his case was reported to the Society, March 26th, 1860. This lad's health having been, to all appearance, fully re-established two months after the injury, he was sent, during the last summer, to the Military School at Norwich, Vt., where, on the 26th day of November last, he had an attack described as follows:—On that day he had dined heartily on roast pork and mince pie; and it is also stated that he had been smoking strong tobacco, in a pipe, for some time previously. That night, between 8 and 9 o'clock, he was found in his room, by a brother cadet, sitting in a chair, with his head upon the edge of the table, and totally unconscious. The physician who was called, Dr. Crosby, of Hanover, N. H., gives the following account:—

“The face was flushed and hot; the pupils dilated nearly to their full size, but contracted feebly under a strong light. The arteries about the head and neck full and bounding; the breathing stertorous, and the mouth and fauces filled with mucus. He was entirely unable to swallow, and so fully unconscious as to be passive in my hands. He was having a convulsion every half hour, and involuntary discharges had occurred from both the bowels and bladder. The pulse was rapid, but wiry. I bled him, in a sitting posture, from the arm, to the amount of a quart. The pulse softened, but there was no sign of returning consciousness. I forced the jaws apart, and introduced several powders of antimony—one grain each—in succession, spreading it far back on the tongue. I also administered two ounces of spirits of turpentine, by injection, using molasses as a vehicle. So far, nothing seemed to have been of any avail; there were no signs of returning consciousness, and the convulsions began to recur with greater frequency. I spread three drops of croton oil on the tongue. The antimony had been continued at intervals, and, at length, he vomited, ejecting his dinner undigested, the raisins of the pie being whole. The convulsions, however, continued with increased frequency. Thinking it important to control them, if possible, I administered chloroform, and kept him under its influence two hours. At the end of that time, I had the satisfaction of seeing no more convulsions, and also observed that he was inclined to make resistance when disturbed. During the attack, mustard was freely applied to the nape of the neck and extremities. A strong decoction of tobacco was applied to the spine as long as the convulsions lasted. About 5 o'clock, A.M. (eight hours after the treatment commenced), he swallowed a little water, for the first time, and the croton oil produced a free discharge from the bowels. Soon afterwards, he called the name of a companion, in a thick, indistinct voice. At 8 o'clock, he seemed to recognize his friends somewhat, but remained in a partially unconscious condition during the day, with the pulse 140, hot skin, restlessness and thirst. He continued taking small doses of antimony during the day and night. He also took, during the day, three Seidlitz powders, and, at night, camphor, hyoseyamus and valerian. He rested quietly, and,

the next morning (thirty-six hours after the attack) had a cool skin, a pulse of 80, and no uneasiness about the head. His tongue was heavily coated, and had been severely bitten during the convulsions. No untoward circumstance occurred subsequently, and he returned home on the eighth day after the seizure."

It is only necessary to add that he remained at home until about the 18th instant (January), regained his usual health and appearance, and then returned to the school at Norwich.

JAN. 28th.—*Severe Injury of the Great Toe; its Aggravation from Applications made by the Patient.* Dr. MORLAND reported the case.

Edward Casey, a laboring man, 50 years old, had the right great toe frozen, in February, 1856. A short time afterwards, an ox trod upon it, and crushed it badly, separating the nail. A year subsequently, a cow trod upon the same toe, lacerating it severely; and, in 1858, another cow repeated the process. There is no reason to doubt the accuracy of these statements, made by the patient—who was at the time employed upon a farm—nor his account of his management of the case.

After the last injury was received, the inflammation and pain in the part were so great, that five or six leeches were applied, with but slight relief, according to the patient.

When first seen by Dr. M., the toe was swollen to double its natural size; the entire ungual surface presented a mass of dark-colored, flabby granulations, overlapping the borders of the sore, and in the centre was a sloughy mass, exhaling a peculiarly nauseous, foetid odor. Yeast-poultices were applied for some time; and when the slough separated, simple poultices of bread and water, or water-dressing with lint; and the granulations were repressed by the use of the nitrate of silver. Under this treatment, the sore is rapidly healing.

By questioning the patient, the reason of the long continuance of the diseased state was ascertained. In addition to the severity of the injuries received, and their frequent repetition, the most irritating applications had been almost constantly made to the wounded surface *for three years*. The following list of articles thus applied, furnished by the patient, Dr. M. believes to be entirely correct:—"Russia salve; balsam; rosin; alum; eggs; lye-water; ashes and water; pitch; tar; guano; spirits of turpentine; burning fluid; tobacco; wax; rum; saltpetre; hen-dung; dry ashes; spiders; soap; Venice turpentine; vegetable tincture and eye-water."

FEB. 11th.—*Hæmorrhage from the Umbilicus.* Dr. W. E. TOWNSEND reported the following case.

The child was a female, born Saturday, Nov. 24th, A.M. She was very quiet, inclined to sleep most of the time, and was frequently obliged to be wakened to be nursed. Color always good. Mother reports no appearance of red gum, and that the discharges were never of a proper color, but always white, and like soft putty. On the fifteenth day after birth, a small spot of blood was noticed on the band, but as the remnant of the cord had come away at the proper time, and the part had well healed, nothing was thought of it. On the morning of the sixteenth day, another spot was noticed, and about noon decided bleeding from the navel commenced. I saw the child about 2, P.M. It was then pale and somewhat yellow, though not decidedly so. I applied lint wet with perchloride of iron, a compress and a bandage;



but these means did no good, and the infant died about 9, P.M., or in about nine hours after free hæmorrhage commenced. Urine of good color, not red or bloody.

FEB. 25th.—*Calculus, partly Siliceous, from the Kidney of a Sheep.* Analysis reported by Dr. BACON.

This calculus was presented to the Cabinet of the Boston Society for Medical Improvement by Dr. Jeffries Wyman, and is numbered 645 in the published Catalogue. It has a triangular prismatic form, each of the three faces being about three lines broad. The length is seven lines, and it weighs seven and a half grains. One of the faces has a peculiar pearly and semi-metallic lustre, similar to the siliceous calculus from the urethra of an ox, exhibited at the meeting on July 23d, 1860. The interior, so far as exposed, is made up of several well-defined layers, varying from grey to a whitish color. Its texture is friable, but the particles are hard enough to scratch glass.

The calculus is composed of silicic acid, carbonate of lime, carbonate of magnesia and organic matter. In the portion analyzed, the silica forms, as nearly as can be determined with the small quantity at command, 50 per cent. of its weight. It retains the form of the fragments submitted to analysis, when the other constituents are removed.

In the tube-vial with the calculus are fragments which have been boiled in nitric acid, and then ignited to burn off the remaining traces of organic matter from the siliceous residue.

FEB. 25th.—*Polypi of the Large Intestine.* Dr. CHEEVER showed the specimen, which came from a female, about 60 years of age, who died of typhoid pneumonia. She had been under observation for three years previous to her death, and had complained of no symptoms but those of pneumonia. The right lung was found to be hepatized. The œsophagus had two bright cranberry-colored discolorations, but no ulceration. The splenic artery was aneurismal, and had several calcified spots in its coats. There was a diverticulum at the lower part of the ileum.

There were *six* or *seven* polypous tumors in the large intestine, two of which were in the cæcum, and the rest in the ascending colon. The largest was of the size of an English walnut, with a long pedicle, and slightly blackish in appearance. All the tumors had pedicles, from one to two inches long. No other morbid appearances.

Dr. JACKSON remarked that the splenic artery is peculiarly liable to become ossified and aneurismal, a fact which is not stated by pathologists. Perhaps the disease is sometimes mistaken for phlebolites; there is a specimen of it in the College Cabinet, which was sent under the name of phlebolite of the splenic vein.

## **Medical Reports from the Mass. General Hospital.**

PREPARED BY ROBERT WARE, M.D.

CANCER OF THE UTERUS IN A PATIENT AGED 21 YEARS. (Under the care of Dr. MINOT.)—Bridget K., 21 years, unmarried, an Irish servant, resident at Stoncham, entered Sept. 6th, 1860. Patient is of pale, but not sallow complexion, somewhat emaciated, and states that

she "believes" her mother died of a "tumor in the breast," while she herself was very young. Her own health has always been good till about eight weeks since, when she was attacked rather suddenly, and without known cause, with chills, vomiting and diarrhœa, and with pain in the back and abdomen. The vomiting and diarrhœa have continued till the present time, and within three days she has noticed blood in the stools; the vomiting occurs chiefly in the morning; the catamenia have been regular till about eight weeks ago, since which time they have not appeared; she has been confined to the bed for three days; she noticed a tumor in the lower part of the abdomen eight weeks since, and was at that time told by her physician that it must have been growing for some time. On examination, the pelvis is filled by a hard, large, slightly movable tumor, which reaches within two inches of the umbilicus, extends rather higher on the left than on the right side, and is flattened on its superior surface. The vagina is almost completely filled by a hard, irregular tumor, which appears to spring from the fundus of the vagina, and to which any motion of the tumor in the abdomen is distinctly communicated. Its surface is covered with warty projections, and no os or cervix uteri can be distinguished by the touch. With the speculum, its surface is seen to be very uneven, granular and bleeding, and no os uteri can be distinguished; a large number of granulations occupy the upper and back part of the vagina; the substance of the tumor is soft, and can be scraped up with the finger nail. After microscopic examination of the matter thus removed, Dr. Ellis reported "that it is composed of corpuscles of various sizes, some of which resemble those of pus, while others are much larger, many of the latter having a lobular arrangement, but unlike that of glandular growths. This may be merely a mass of granulations."

At the time of her entrance, she suffered much from vomiting and pain in the lower part of the abdomen and back; she had very frequent discharges from the bowels, and the stools were often bloody and accompanied by tenesmus; the urine was high-colored, was passed with pain, and, at times, involuntarily. She got some relief from opiates and the occasional administration of castor oil; the dejections were less frequent, and she slept better than on entrance, but pus was noted in the stools on Sept. 23d, and the vaginal discharge became quite offensive; she failed in strength, and, at her own request, was discharged, "not relieved." Oct. 1st.

PLEURISY. DEATH FROM ERYSIPELAS. (Under the care of Dr. SHATTUCK.)—John G., 40 years, an unmarried, laboring Irishman, resident of Boston, entered November 16, 1859. Patient states that his health is usually good, and that he is in the habit of drinking four or five glasses of liquor daily. He has been sleeping in a very damp cellar, and was ailing with cough and feverish symptoms for two or three days before he gave up work. He has been in bed since the 9th; has suffered from considerable pain in the right side of the chest; has had no medical attendance. On admission (eighth day of the disease?), decubitus on the left side or back; skin hot and dry; tongue thickly coated; pulse 120, respiration 30, short and hurried; still has pain in the right side, increased on pressure or full breath; expectoration scanty, frothy; the bowels were moved on the 15th; the percussion is dull over the lower right back and below the right nipple in front, somewhat resonant in the right supra-spinous fossa, and nor-



mal at the upper part of the right front; the respiration is absent at the base of the right back and below the nipple in front; bronchial respiration and bronchophony at the right supra-spinous fossa, and some coarse râle in the axilla. Hot turpentine stupes were applied to the side; he was ordered of the syrup of squills, of the fluid extract of dandelion and of the sweet spirits of nitre, each half an ounce four times in the day; he was put upon a liquid farinaceous diet, and "life everlasting" was given in decoction.

9th day.—Pulse 104, regular, small and rather strong; face flushed; skin moist; tongue clean at tip; expectoration consists of viscid, semi-transparent mucus with a little serum. R. Pulv. Dovr. grs. vi., every four hours. Beef tea.

10th day.—He passed a wakeful and delirious night, and became very noisy when restraint was imposed. He was ordered ten grains of Dover's powder every two hours till four doses were taken, and to take milk and beef tea as he wished.

11th day.—He took the powders four times, and slept four hours this morning; the respiration was very bad on awaking; has taken two quarts of milk and a pint of beef tea in 24 hours; skin soft; pulse 116, small; erythematous redness over the right fore-arm and inside of the left thigh; percussion dull below the spine of the right scapula, and below the nipple; respiration feeble, with sibilant and sonorous râles at the angle of the scapula, and bronchial at its inner edge and below the spine; the murmur is feeble, and mixed with some sibilant râle at the lower right front. Sulphate of iron in solution was applied to the arm, and ten grains of Dover's powders were given every four hours.

12th day.—Has been very restless, but has had some disturbed sleep; has taken three quarts of milk and a pint of beef tea; a large vesication has appeared on the arm; tongue dry, and protruded with difficulty; feet cold. R. Spt. ether c., ʒij.; spt. ammonia aromat., gtt. x.; elix. opii., gtt. xx. Mix. To be taken every three hours. He failed through the day, and died at midnight.

The autopsy, by Dr. Ellis, was necessarily hurried, on account of the darkness. The left thigh and right forearm were swollen, and pus followed an incision into the upper part of the thigh; the tissues of the arm were œdematous. Five pints of serum were found in the right pleural cavity; at the bottom was nearly a pint of soft, yellow material, which, under the microscope, presented the usual appearance of coagulated fibrine, and contained corpuscles like those of degenerating pus; the lower lobe of the right lung had the usual firm fleshy character resulting from compression; extensive congestion of the posterior part of the left lung. Other organs not remarkable.

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## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

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BOSTON: THURSDAY, APRIL 4, 1861.

"DE LA PELLAGRE SPORADIQUE." Par H. LANDOUZY, *Professeur de clinique interne et Directeur de l'Ecole de Medecine de Rheims, &c.*—The singular disease known as Pellagra is quite commonly supposed,

in some parts of Europe, to be caused by an exclusive diet of Indian corn, or a diet into which it largely enters, and to be confined to certain portions of the Continent. This opinion has lately been maintained in a discussion at Paris. One would suppose, if it be correct, that America might furnish, occasionally at least, specimens of the disease among the poor of those districts where maize is so generally used as the chief farinaceous element in the food. As yet, however, we have never heard of a single case of pellagra in this country. Perhaps it may have attracted the attention of some of our correspondents at the South or West; if so, we should be glad to hear from them.

Prof. Landouzy has published four very interesting articles on *sporadic* Pellagra, in the July, September, October and November Numbers of the "*Archives Générales de Médecine.*" His conclusions are the following:—

1. Sporadic pellagra, although scarcely mentioned in the most recent medical treatises, occurs at Rheims, at Paris, and probably throughout the country.

2. Sporadic, like endemic pellagra, is characterized by certain cutaneous, digestive and nervous lesions, appearing either singly, simultaneously or successively. These show themselves almost always in the spring.

3. Sporadic pellagra is very often not recognized on account of its resemblance to many other morbid conditions, but especially from the errors existing as to its etiology.

4. Sporadic pellagra will cease to be considered a rare disease after it has been perfectly described by practitioners, and the ideas concerning it are cleared of the hypotheses which obscure them.

5. Sporadic, like endemic pellagra, occurs in those localities where the maize is entirely *unknown*, and it exists in all its different degrees in those persons who never have eaten this grain. It occurs equally where cereals that are spoiled are used for food, where poverty exists, and where there is exposure to the direct rays of the sun.

6. Sporadic pellagra, endemic pellagra and pellagrous mania, are identical affections. The would-be differences that have been made between the pellagra as it occurs in those countries where the maize is grown, as it occurs in the centre of France, and as it occurs in other countries, are merely differences that may be observed in any other diseases whether sporadic, endemic, hereditary, or produced by toxic agents.

7. The anatomical alterations which take place are lesions in the stomach and intestines, and softening of the spinal cord.

8. The intimate cause of pellagra is unknown. Its principal exciting cause is exposure to the sun. Its principal predisposing causes are, its existence in the parent, poverty, bad nourishment, the depressing passions, mental derangements, particularly insanity and melancholy.

9. The diagnosis rests principally upon the periodic return in the spring, of the three special forms of the disease, often occurring together, impossible to mistake when so doing, but very difficult to recognize when existing alone.

10. The prognosis should be guarded; for whatever may be the severity or the nature of the symptoms, either form of pellagra may be



quickly fatal, however mild its commencement, or be followed by complete convalescence, however severe its first appearance.

11. Besides the treatment for special symptoms and the avoidance of all debilitating remedies, we must employ a good hygiene, nourishing diet, free bathing, and the general alteratives.

Towards the end of winter a careful regimen must be particularly insisted upon, also the use of the preparations of quinine and protection against the influence of the sun. B. J. J.

COLLODION AS A TOPICAL APPLICATION IN PHLEGMASIA DOLENS.—We translate the following case from the *Journal de Medecine de Bordeaux* of January, 1861. The case is interesting as showing a speedy recovery from a dangerous and very painful disease without recourse to the powerful means which have been so freely employed against it. As to the efficacy of the means employed, we will only say, that it may have been used just at the moment when the disease was about undergoing resolution, although we have no wish to question its efficiency. Pressure by bandages has been found of great relief, sometimes, in these cases, and the method here recommended certainly has the advantage of any bandage.

This disease is rather rare. In the course of a long practice we have seen but two cases; and in the course of thirty-six years, Dr. Robert Latour, to whom we are indebted for this note, has seen it but four times. The last occurred quite recently. The prompt resolution of this attack convinced this gentleman of the favorable action of the remedy employed.

A young lady, twenty years of age, on the tenth day of her second confinement, the first having been perfectly normal, was allowed to sit up. The next day, the left thigh had become greatly swollen, and could not be moved without pain. For three days she found no relief. At that time the swelling, which had become very great in the thigh, had continued down the leg to the ankle, stopping at the foot. The tumefaction, color and heat of the limb, the pain on pressure and on the least motion, the fever, burning thirst, and distressing sense of anxiety, fixed the character of the disease. Dr. Robert preferred to emollient fomentations, mercurial inunctions and purgatives, the method of isolation; to which he attributes a special efficacy in the treatment of inflammations. Hardly had a coating of *collodion cr  m  * been applied to the limb when all extension of the inflammation upward ceased; and within two hours the patient declared herself relieved. The following day, the heat was reduced and some motion was possible. The swelling remained, but the inflammation was diminished. The foot alone, which had not been covered with collodion, was swelling. This omission was repaired, and on the second day after there was no pain in handling the limb or on motion. The limb still remained stiff, but on the seventh day of treatment it had returned to its normal condition, and the doctor received a call from his patient at his own house. During the whole course of her sickness, being kept on moderate diet, she was able to nurse her infant.

MESSRS. EDITORS,—From the evident connection which has been traced between the present epidemic of that which is now called “diphtheria,” and the “throat distemper” which prevailed in New England towards the middle of the last century, I thought it might interest your readers, non-medical as well as medical, to read the following extracts from the almanac and private memorandum-book of Paul Dudley, Esq., of Roxbury, which is now in my possession.

Paul Dudley is the gentleman who gave the money to Harvard University to establish the annual lecture known as the “Dudleian Lecture.”

Respectfully yours,

15 Chestnut St., March 18th, 1861.

B. JOY JEFFRIES, M.D.

"1740.—January 8th. Measles continue in many towns.

"February 5th to 28th. Measles prevail in many towns and the throat distemper yet in the land.

"June? The throat distemper got to Cambridge. Several died, particularly Madam Holyoke.

"July. The Commencement put by this year by reason of the throat distemper at Cambridge. The President's lady died of it the latter end of June.

"November (first part). The throat distemper in many parts of the Province, and very mortal."

Frequent mention is made throughout the whole year of the severity and "unseasonableness" of the weather.

**MEDICAL COMMENCEMENTS.**—The fifty-fourth annual commencement of the Medical School connected with the University of Maryland, took place on Saturday, March 2d. Degrees were conferred on 63 graduates. Prof. William A. Hammond delivered the valedictory address to the graduates.—The annual commencement of the Virginia Medical College was held on Tuesday, March 5th. The valedictory address to the graduates, who were 59 in number, was given by Prof. James H. Conway.—At the Baltimore College of Dental Surgery, the annual commencement was held on the evening of the 26th of February. There were 29 graduates.—At the Maryland College of Pharmacy, five students received diplomas at the commencement, on the 1st of March.—The commencement of the Savannah (Ga.) Medical College took place March 1st, and 14 graduates received their degrees.

#### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MARCH 30th, 1861.

##### DEATHS.

	Males.	Females	Total
Deaths during the week, . . . . .	39	45	84
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	40.9	34.7	75.6
Average corrected to increased population, . . . . .	..	..	84.3
Deaths of persons above 90, . . . . .	..	..	..

##### Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
14	1	3	6	0	1	0	1	0

#### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	30.052	Highest point of Thermometer, . . . . .	53°
Highest point of Barometer, . . . . .	30.404	Lowest point of Thermometer, . . . . .	24°
Lowest point of Barometer, . . . . .	29.700	General direction of Wind, . . . . .	W. & S.W.
Mean Temperature, . . . . .	42° 3	Am't of Rain (in inches) . . . . .	0.0 8

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 585.

	BAROMETER.				THERMOMETER.				SNOW & RAIN.		Mean Amount of Cloud. 0 to 10.
	7 A.M.	2 P.M.	9 P.M.	Mean	7 A.M.	2 P.M.	9 P.M.	Mean	Time	Measure.	
Monday, March 18,	29.79	29.68	29.60	Mean Point, 29.46	13	27	34	Mean Height, 30.5	Time	0.00	5.5
Tuesday, " 19,	29.53	29.54	29.62		26	37	24		Light snow.		
Wednesday, " 20,	29.58	29.56	29.62		20	21	19		Light rain.		
Thursday, " 21,	29.66	29.60	29.47		16	39	33				
Friday, " 22,	29.23	29.06	28.94		34	48	51				
Saturday, " 23,	29.09	29.23	29.48		22	35	26				
Sunday, " 24,	29.66	29.52	29.31		21	46	47				

**DEATHS IN BOSTON** for the week ending Saturday noon, March 30th, 84. Males, 39—Females, 45.—Accidents, 2—apoplexy, 1—asthma, 1—disease of the bowels, 1—inflammation of the bowels, 1—congestion of the brain, 4—disease of the brain, 4—inflammation of the brain, 1—bronchitis, 1—consumption, 14—convulsions, 4—croup, 1—debility, 2—dropsy, 4—dropsy of the brain, 2—erysipelas, 1—scarlet fever, 3—typhoid fever, 1—gangrene (of the foot), 1—hæmoptysis, 1—disease of the heart, 5—infantile diseases, 4—jaundice, 1—disease of the liver, 2—congestion of the lungs, 2—inflammation of the lungs, 6—old age, 2—paralysis, 1—smallpox, 1—disease of the spine, 1—sore throat, 1—suicide, 1—tumor of the stomach, 1—unknown, 7.

Under 5 years of age, 36—between 5 and 20 years, 7—between 20 and 40 years, 19—between 40 and years, 12—above 60 years, 10. Born in the United States, 62—Ireland, 21—Germany, 1.



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DR. WARE'S LECTURES ON GENERAL THERAPEUTICS.

LECTURE IV.

GENTLEMEN,—The preceding lectures have been occupied by a statement of some general laws according to which recovery from disease takes place, and an illustration of certain points which are to be attended to in forming a medical judgment concerning its treatment. We pass now to a consideration of the method of procedure when we are to lay out a plan for the management of a particular case. Having acquainted ourselves with the history, present condition and probable nature of the disease, this plan will be determined by inquiries directed to certain points.

1. We are to determine whether the cause or causes that have produced the disease continue to operate. Now we very often do not know what these causes have been, and yet we can often judge from indirect evidence, whether they are or are not in actual operation. In acute diseases, the causes that have produced them do not usually continue to act upon the patient. In chronic, on the contrary, it very frequently happens that they do. The causes of acute disease for the most part operate speedily, often at a single blow, and then, having produced their impression, cease to exercise any further influence. This is the case with contagions, with cold, with excesses as to diet, with speedy exhaustion of vital power by impressions either on the mind or body. The disease, when once begun, goes on quite independently of that which has produced it. Sometimes, no doubt, the continued influence of the cause may aggravate the disease and interfere with its favorable progress, as when fever has been generated by close and foul air, or inflammation by exposure to cold. But the abstraction of the cause will not prevent it from going through with its regular course.—The causes of chronic diseases operate slowly, and may have been acting for years before they produce any obvious effect. Such is the case where they are the result of a patient's occupation—of bad habits of life—of climate—of particular locality—of too much, or too little, or improper food—of want of air or want of exercise. Hence in these diseases an important part of

treatment consists in the removal of the patient from the influence of such causes, or in neutralizing that influence. Thus, scurvy is relieved by a particular diet—many affections of the digestive organs by diet, air and exercise—many pulmonary affections, by a change of climate. As a general rule of action in these cases, especially where they have been slowly formed and have become habitual, it is desirable, as far as possible, to bring about a general change of all those influences and habits of life under which the disease has originated and grown up; those, particularly, that are peculiar to the individual, or which have any probable connection with the character of the case. The clerk, who has been confined to his counting house and his pen—the seamstress, to her work-room and her needle—are to be removed from the city to the open air of the country, and to the amusements and occupations of a country life. The inhabitant of the sea-shore is to be sent among the mountains, and *vice versa*. The vegetarian should make trial of a diet of animal food, and the predominant eater of animal food be advised to change it for a larger proportion of vegetable. Abstinence should be prescribed to the drunkard, and to the tetotalter a moderate use of stimulants—and this, irrespective of the particular form of the disease. Thus, of the insane man, we cannot say by which of the particular influences under which he has lived his mind has been disturbed, but we find that if he is removed from all of them, he speedily improves. Of a patient laboring under a long-continued affection of the digestive organs, we cannot say what in his habits or mode of life has produced it, but if we change the whole by sending him a long voyage, he soon entirely recovers.

2. The next inquiry is, whether the disease be one of those for which there is some direct or specific remedy, like those already mentioned—quinine for intermittents, sulphur for the itch, mercury and iodine for syphilis. The list of remedies, as has been before remarked, having a reputation of this sort, is very large, while the number of those that unquestionably deserve it is very small. There are, however, a great many that have so undoubted a power of controlling certain conditions that appear in disease—conditions so important that they almost appear as if they were the disease—that a specific power may, in a somewhat different sense, be assigned to them. Such is the power of opium in spasm—of colchicum in gout and rheumatism—of iron in some states of the blood—of lemon juice and other vegetable products in scurvy. Of the remedies which are specific in these two senses, I mention those only whose efficacy is the most generally conceded. The number of those for which such an efficacy is claimed, and by many believed to exist, is very great.

3. The next question is, whether the disease is capable of being broken up, shortened, or mitigated, as a consequence of the use of any of those remedies which produce a distinct operation



on the system, although not a directly curative one—such as blood-letting, emetics, cathartics, diaphoretics, diuretics, blisters, &c. As has been before remarked, much has been believed of the efficacy of these remedies, although the nature of their efficacy and the mode in which their results are brought about have not always been distinctly recognized. Thus bloodletting has been supposed to cure inflammations—emetics to cure fever—digitalis to cure dropsy—mercury to cure inflammations, &c. &c., as distinctly as bark to cure intermittents. It would be presumptuous to assert that remedies of this description are not very often of signal benefit in the treatment of disease. If it be so, however, I have before endeavored to show that the results take place in a different way from that which follows the employment of the articles before spoken of.

4. Supposing that we can base our treatment upon neither of these methods, or supposing that they have been employed without effect, the next inquiry is, whether the sanative effort, unaided, will be sufficient for recovery, or whether anything requires to be done, either directly or indirectly, to aid it. This embraces a wide field, and in fact includes the greater part of the subject of therapeutics. Its development will form the principal topic of the remaining lectures, and it is only necessary now to suggest a few preliminary considerations.

The fundamental purpose always to be kept in view in this mode of treatment, is to maintain the vital forces in such a condition as will enable the system both to resist the destructive tendencies of the disease, and to carry on successfully those processes which are necessary to its removal. The most immediate agencies in these processes belong to the system of nutrition. But in disease, as in health, these are not alone in their office. They are subordinate to and in correspondence with all those other agencies which are engaged in carrying on the work of life. The functions of circulation, of respiration, secretion, excretion and innervation, are all ultimately as necessary as that of nutrition. Hence the main purpose, and that which runs through the whole of treatment, from beginning to end, is to promote the power of recovery by keeping all the functions in such a condition and in such due relation to each other as will enable them to take their part in the work going on. But the state of the functions required, it is to be recollected, is not that which is relative to health, but that which is relative to disease. It is not the aim, therefore, to bring or keep these functions precisely in that condition and relation which is suited to health, but that which is suited to the necessities of disease. Now as the states and requirements of disease vary indefinitely from those of health, so will that condition of the functions which will best promote the purposes of disease, vary as indefinitely. Recovery will not be necessarily promoted by that state of the system which most closely resembles that of health.

The great indication, then, to promote the power of recovery, is one to which all others relate, and to which they are all subordinate. The immediate indications are sometimes to bleed, to vomit, to purge, to blister, &c., but they are all to be followed with a due regard to their bearing upon this, which is the fundamental one. Other indications are temporary and occasional ones; this is constant; it goes through the whole disease, and is as much to be regarded the first day of treatment as the last. What the patient should do, and quite as much what he should not do—what medicines he should take, and what he should not take—what food be allowed, and what not allowed, are matters for judgment, which come up every day; and although the effect of the error of a single day may be small and inappreciable, the combined errors of all the days of a disease may make all the difference between recovery and death.

The common term, in practical language, by which the existence of a capacity to contend with disease is expressed, is "strength;" and the absence of this capacity, by "weakness." But these terms are often used in a vague and unsatisfactory manner. Every one would admit that an important point in treatment is to preserve strength and prevent weakness. But do we not often fail to present to ourselves a clear idea of what that strength is which we want? We want strength to carry the patient through his disease—to support him whilst he is contending with it; but we do not want muscular strength, nor strength of circulation, nor of digestion, nor of nutrition, in the sense in which these terms are used as applied to a healthy man. We want a vital force in the system, which shall be distributed in such proportion as shall best subserve those purposes which the system under disease is striving to accomplish. Now the best distribution for a state of disease will usually be very different from that which is best for a state of health. Accordingly, that which will give strength to the well man, may take it away from the sick man. Taking food into the stomach, refreshes the former—taking it into the stomach, in many states of disease, exhausts the latter. So, too, the exigencies of different kinds of disease, and of different states and periods of disease, are such as to require corresponding differences in the distribution of vital force. In the early periods of acute disease, when there is abundance of this force in reserve, however weak the patient may feel, little of it is directed to the functions of assimilation and nutrition. Towards its close, when recovery begins, there is vastly less of this force, but it is differently directed, and these functions are performed with great vigor. It is like the power that moves a large factory devoted to a variety of purposes. It is in itself a unit—an individual power. But it may be directed to different purposes in very different proportions—now to turn a lathe, now a spindle, and now the complicated movements of a loom, according as the de-



mand for these operations may require. It must be acknowledged that this term vital force is wanting in precision as expressing any distinct idea of its nature. Its use has often been objected to on this account. Still, though it conveys no idea of its nature, it does of its office, and I suspect all practitioners who are familiar with disease, will appreciate its practical relations.

These terms, strength and weakness, are so constantly used in medicine, in such various senses, and we are so constantly called upon to arrange our treatment with reference to some of these senses, that it will be useful to determine, as accurately as possible, how we are to understand them in their relation to the first great indication of treatment which has been just stated. What is the nature of the strength we are to promote, and of the weakness we are to prevent.

By a strong man, is popularly understood one who has great muscular capacity, who can perform much labor, endure much fatigue, resist the influence of heat and cold, and the causes of disease, without injury. But this kind of strength is not that which enables a patient successfully to contend with disease, or to recover from it. The term weakness is also used in as different senses. A person deficient in muscular capacity, will be called weak, though all his functions are performed perfectly well. He may call himself weak, because he has a feeling of weakness, though, if occasion call, he may be capable of great exertion. If he be particularly liable to disease, either of the system or of any particular organ, he will be said to have a weak constitution, a weak stomach, weak lungs, or weak eyes.

The same term is also employed to designate a temporary incapacity for muscular exertion, accompanied by a great feeling of prostration, from whatever cause this proceeds. Thus a person made sick by tobacco, is reduced at once to a state of what is called great weakness—the same happens from syncope and lesser degrees of faintness—from hunger, fatigue, and all sudden and severe agitations or emotions of the mind. Yet here there has been no actual loss, to any considerable extent, of that which constitutes real strength in any sense of the word. The weakness from all these causes passes off very rapidly, and the individual returns to his usual condition. The effects of tobacco last at most but a few hours—the hungry man is refreshed by food at once, before any digestion or absorption can have taken place, and fatigue is remedied by rest and sleep.

A feeling of weakness is caused also by disease, independently of any positive exhaustion by the disease. It is often the prominent, and sometimes the only thing complained of by the patient, in both acute and chronic cases. The first complaint of children often is that they are tired and want to lie down. But, previous to any actual causes of exhaustion, this is an unreal and deceptive feeling. It does not indicate any loss of that sort of strength on

which the power of recovery depends. At the beginning of acute disease, a patient may experience this feeling to an oppressive degree—muscular exertion may be almost painful to him—he may become faint from the erect position. Yet he may be bled, vomited and purged—not, perhaps, without faintness at the moment, but even this is not uniform—and feel stronger after them than before. He goes through the processes of disease, which may last two or three weeks. The feeling of weakness is less, and hardly felt when he makes no effort; he takes and digests as much food as a man in health. Yet he can hardly lift his hand to his head, the loss of a few ounces of blood produces alarming faintness, and the action of the bowels a sense of general exhaustion.

These two conditions have always been more or less distinctly recognized, and have been designated by the terms “depression of strength” and “debility.” The first expresses a condition in which the vital force is not exhausted, but withdrawn from its ordinary application by the presence of disease; the second, that condition in which vital force has been exhausted, but in which what remains of it may be applied to the performance of the functions of repair.

In order to understand the very various states of the system and of its parts to which the terms strength and weakness are applied, we are to consider that there are two sources of activity in every organ, and consequently two sources of exhaustion. In the case of a muscle, we have, first, the nervous energy conveyed to it from the nervous centres; and, secondly, the blood, conveyed to it from the heart. In every contraction there is expended a certain amount of both. The same is true of every other organ, whatever be the nature of its functions—so that there is constantly going on an expenditure of the force and a consumption of the material of the system. In all cases of real or apparent weakness, there is a disturbance of one or both of these elements of activity, usually of both, but in different proportions and in different organs, and hence the various character of the phenomena. In syncope from bleeding, the first impression is made upon the circulation; in sickness from tobacco, it is made upon the nervous system; but in each case both become speedily implicated. Now as there are two principal sources of exhaustion, there are also two principal means of restoration—sleep and food; sleep, of the vital force—food, of the vital material. Not that these are the only apparent means, but that into these all others may be ultimately resolved.

In order to estimate the state of a patient in the progress of disease, as to the amount of the real effective strength he may have at any period to carry him through with it, we are to look at its history in connection with these considerations. A disease begins with a certain amount of force and a certain amount of material. Probably, whatever may be the apparent condition of the patient, neither of these is suddenly or rapidly exhausted, but only diffe-



rently applied. The prostration from tobacco is as great as that from any disease, but the power of recovery is unimpaired; it acts with energy—it speedily eliminates the poison from the blood, and the subject is well at once. There has been a disturbance in the application of the elements of strength, but no considerable loss of those elements themselves. Now, at the beginning of disease, an analogous disturbance may take place—even to so great an extent as to destroy life—and in the course of a disease such a disturbance may also occur after the subject of it has lost much real strength, and thus produce a complicated condition where it becomes extremely difficult to distinguish how much of it is owing to one cause and how much to another, and yet the distinction is of no small importance in judging of the measures to be adopted. Several considerations will aid us in making our judgment.

We are to reflect, that as a disease proceeds, both sources of exhaustion are going on, but not always in an equal manner. The causes of nervous exhaustion which chiefly operate, are, a want of sufficient sleep, delirium, great pain, or continued suffering and discomfort of any kind—mental states, grief, anxiety, fear—a great many lesser agencies, as noise, company, occupation of mind unsuited to the state of sickness, annoyances of various kinds that would be unnoticed in health. Of the causes which affect the supply of material, there is the loss of the power of assimilating food—irregular, unequal and imperfect circulation and respiration—deficient excretion, which impairs the quality of the blood—direct losses of blood—consumption of the material by the actions and processes of the disease or by remedies, as purging, excessive sweating, discharges of urine, bile, &c. In many of these cases the cause has a combined operation, exhausting both the power and the material.

Now this process of exhaustion is constantly going on during a fit of sickness, especially an acute one, and its effects are exhibited in various ways. These effects are to be observed and measured as the disease advances, and as that state of unreal weakness which exists at the beginning passes gradually into that state of real weakness which exists towards the close. The degree in which this transformation has taken place is a very important point in practice, for the same means, such as food, tonics and stimulants that are the appropriate remedies at the close, are entirely useless if not injurious at the beginning; whilst the opposite class of remedies, such as evacuants, which are at least well borne in the first period, are absolutely injurious in the second. Just, too, as one or the other of the conditions pointed out predominates, is the corresponding treatment to be adjusted. In a vast proportion of cases, mild in character, a very close observation of these particulars is not required. It is easy to see at once that there is strength enough in reserve, and that no strict regulation of the details is necessary. But in severe and critical

cases, where the chances of life are nicely balanced, the judgment becomes very difficult, and it requires a careful consideration of the indications of exhaustion, the amount of it, and the causes of it, to inform us of the necessities of the case.

The feeling of weakness alone is not a guide, as will be inferred from what has been said, for it may exist where there is real strength; neither is the absence of this feeling, for it may exist where there is real weakness; neither is the presence or absence of muscular ability, nor the state of the mind, nor the power of taking food, nor the state of the pulse or respiration or the skin, taken by themselves. It is only by putting the state of the patient in all these respects together, and combining them with the preceiling events of the case and the causes of exhaustion which have been operating, that we can form a satisfactory opinion.

A few examples of certain of the occurrences of disease will serve to illustrate, in some measure, the principles I have endeavored to enforce, and aid us in forming rules of judgment in practice. The rapidity with which a state of exhaustion has come on, is an element to be considered. Supposing it to take place at the beginning of a case, from excessive vomiting or purging, either spontaneous or produced by medicine, however considerable it may be, it is of vastly less moment than if, of the same degree, it have occurred from long-continued vomiting and purging. The stage of disease in which the occurrence takes place is also a consideration of importance. Thus, in common cholera morbus, a patient may, in a few hours, fall into a state of extreme exhaustion—become cold and pulseless—the skin clammy, flabby and blue—the extremities shrunken, the countenance cadaverous. But if the disease be arrested, he may in a few hours be placed in a state of safety and comfort, and in a few days regain nearly his usual health. But were he reduced to the same condition at the close of an acute disease, or in the advanced period of some chronic ailment, his danger would be extreme, and even were he to escape death, the subsequent prostration would be great and long-continued.

The sudden syncope produced by a large loss of blood, in a person in health, is almost without danger if it be short of immediate death, and the flow of blood can be completely checked. It is astonishing from what an apparently desperate condition the subject will rally. An equally complete syncope, if the result of long-continued and repeated small hæmorrhages, even where the flow is at last checked, is a condition almost hopeless. In the same way, a copious hæmorrhage is well borne at the commencement of an acute disease, whilst a small one may destroy life at its close. So, too, any other depressing agent depends, for the effects it produces, upon the stage of disease and the condition of the patient. Children, in the early period of acute disease, are liable to fall into a species of collapse from antimony—and this,



even, where there has not been much vomiting. Yet they usually rally from it, whilst, at a later stage, a similar state will almost certainly be followed by death.

The mischief which has been produced by causes of exhaustion, is not always manifested by symptoms following immediately upon their operation. Their effects sometimes appear to accumulate to a certain amount before they show themselves. The system struggles in such cases, and maintains itself successfully against them up to a certain point, and then gives way rapidly or at once. This is a very formidable state of things, and death may unexpectedly occur in this way, where there had been no premonitory indication of such a termination. A liability to it seems the peculiarity of certain constitutions, which behave like some spendthrifts, who, with a limited capital, live generously upon it to the last farthing, and then become paupers on the instant. Thus in dysentery, a patient will sometimes go on for many days with very severe symptoms, but with a good pulse, countenance and skin, good muscular strength, capacity for taking nourishment—in fact, exhibiting no indications of exhaustion, and yet very rapidly everything gives way—the skin and extremities become cold—the countenance shrunk and cadaverous—the pulse dwindles to a mere thread—the respiration becomes rapid and limited—frequent vomiting ensues, and he speedily sinks. A similar condition sometimes presents itself after a protracted labor, where the patient has endured the severest pains for several days, without sufficient sleep or food, but with a good firm pulse and a cheerful mind till the labor is accomplished. Then, without any unusual loss of blood, the system gives way, and a fatal collapse ensues. Upon the same principle, though in a different way, it happens, probably, that men of firm and robust and continued health, but who have depended upon their strength of constitution to live in a reckless disregard of all the dictates of ordinary prudence, will sometimes succumb before an amount of disease from which those of much less apparent vigor escape, or else become suddenly and prematurely old, or sink by some chronic organic malady.

Extreme cases like these are rare, but they are instructive. What takes place here on a large scale, is constantly taking place on a small one. The careful study of them, and of the inferences to be drawn from them, affords a knowledge capable of being applied every day in cases of ordinary severity and of comparatively safe character. The principles upon which great events turn, are identical with those that govern the most trivial.

The strength, therefore, which we are to husband, and the decay of which we are to prevent, is essentially that upon which depends the power of enduring disease and promoting recovery. It is not correspondent to that which is commonly understood as strength, though that is one of the elements in its composition. It is that vital force formerly described, which governs the disease

from beginning to end, distributes itself variously under different circumstances, so as to bring to pass that which is best at the time, in all the successive stages; which may exhibit itself at the same moment in different organs, as weakness in one, and strength in another. The amount of it is, in regard to treatment, the most important thing to know, but it is not to be known by the condition of the patient at any one time, nor by his sensations, nor by any one symptom or set of symptoms, but by a combined consideration of the state of constitution in which the disease began, the mode in which it bears the disease and in which it does itself manage the disease, the character of the pathological cause, the degree of severity and the effects of all the symptoms; and all these in connection with each other in the order of time and with causes of exhaustion which may have been successively operating. This is in accordance with the remark formerly made—that treatment is to be regulated not merely by the strict pathological condition, but by this in connection with its secondary effects. If the same pathological state exhibits itself by different symptoms in different patients, then there must be some sufficient reason in the economy of each, why it should do so; and upon this reason may depend the real character of the case, so far as its treatment is concerned.

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#### CYSTIC TUMORS OF THE VAGINA, WITH A CASE.

By J. F. NOYES, M.D., WATERVILLE, ME.

[Communicated for the Boston Medical and Surgical Journal.]

LIKE other mucous cavities of the body, the vagina is sometimes affected with morbid growths. Cystic tumors in the vagina, however, are rarely met with in life; more frequently they have been discovered in post-mortem examinations.

M. Nélaton, in a recent surgical work, describes, in a clear and comprehensive manner, their anatomy and pathology. According to this author, these tumors have their origin in a diseased condition of the superficial and deep-seated follicles normally situated in the mucous lining of the vagina. Those having their origin in the superficial follicles, are generally situated low down at the entrance of the vagina and in the region of the urethra, while the deep-seated are found in the anterior and upper half, near to the cervix uteri.

Scanzoni, however, is not precisely of the same opinion as to the origin of these tumors. He is convinced, he says, from a dissection carefully made, that they not unfrequently are developed, not in the walls of the vagina, but in the peri-vaginal cellular tissue. Rokitansky also admits that the primitive seat of these cysts is outside of the vagina, in the conjunctival tissue which surrounds it. According to M. Nélaton, it is rare to find more than



one of these deep-seated cysts in the same subject, while the superficial and smaller cysts are described as having been seen in clusters. Cystic tumors of the vagina vary in size from that of a hemp seed to the magnitude of a hazel nut. Scanzoni, who has had large experience, mentions having met with but one as large as a hen's egg.

From the almost entire absence of anything upon the subject in any English work on diseases of females, that we have seen, and also in those of our own writers, we conclude that these tumors are rarely seen in practice, and seldom attain a size demanding surgical treatment. We have no where met with an account of a cyst so large as that which recently came under our own observation and treatment. The following is a report of the case:

Mrs. S——, of China, Me., æt. 40, of rather slender constitution, was married at the age of 24. She has always had a troublesome eruption and acne of the face. While pregnant, sixteen years ago, she discovered a small bunch or tumor a little within and on the front side of the vagina. It did not increase much in size till after her accouchement, which was not interrupted by its presence. She gave birth to a healthy child, and has not since been pregnant. Since that time the tumor has continued to increase gradually but more rapidly in size, and she has undergone much suffering and anxiety with it. Getting no encouragement, she says, from the professional consultation she had had, that anything could be done for her relief, she was ready to set out for Boston for help, when she came to me.

Upon examination, a soft and elastic tumor as large as a coffee cup was found filling and distending the vagina, and protruding considerably from the vulva. It had been in this condition, she said, for the last ten years, rendering copulation an impossible act, and causing her (especially when much on the feet) dragging and bearing-down pains. The vagina was so filled and distended by the tumor, that it was with difficulty that the index finger could be introduced at the posterior commissure and carried to the parts beyond it, and it was impossible to make out how far the tumor extended up the vagina. The cervix uteri could not be reached with the finger thus introduced. On looking at the tumor thus protruding externally, it might easily, I think, have been taken for a prolapsus of the bladder, or perhaps enterocele; but a careful exploration of this organ showed that it had no connection with it. Using now a small exploring trocar and canula, the tumor was found to contain a glairy substance, resembling in consistency and color thick honey. In this way its pathology was conclusively determined. It was now freely laid open lengthwise and emptied of its contents, when its inner surface was found to be lined by a perfectly smooth membrane. The thickness of the cyst, when it was cut into, was nearly a quarter of an inch. The cavity left was so large after it had been emptied, it was found necessary to

dissect away the tumor to its base, with the intention of bringing together the edges and securing them with silver wire sutures, in order to diminish the lax and dilated vagina to its normal calibre. This being done, it healed kindly in a few days. The base of the tumor was found to extend, commencing half an inch from the meatus urinarius externus, up the vagina a little to the left side nearly three inches. Its breadth was nearly two inches. Three weeks after the operation, the patient had entirely recovered, and considers now the organ in a normal condition.

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#### LABIAL THROMBUS.

[Read before the Middlesex East District Med. Society, Dec. 26th, 1860, and communicated to the Boston Medical and Surgical Journal.]

BY T. RICKARD, M.D.

THROMBUS, or sanguineous infiltration of the areolar tissue of the labia majora, is comparatively rare in its occurrence. It is not confined to pregnant women, but may occur in the non-gravid. It is a far less important accident, however, when occurring in the latter class of patients.

Its cause in the present case is to be found, evidently, in a varicose state of the vaginal veins, produced by an obstructed circulation in consequence of the pressure of the foetal head upon the large venous trunks within the pelvis. With the existence of this condition of things, we see at a glance that the descent of the head in labor may produce a rupture of a varicose vessel, and be followed by a rapid and very great enlargement of the labium of the affected side. Although the rupture of the small vessel must necessarily take place during labor, the tumefaction is not generally discovered till after the birth of the child. The reason of this is perfectly obvious: the descent of the head leaves no room for effusion, and consequently it does not generally become manifest till the head or breech presents at the vulva. It is sometimes discovered while the head is high up, as in the following case:

In the afternoon of May 19th, 1852, I was summoned to attend Mrs. M——, primipara, who had been in labor two or three hours. On visiting her, I found the pains of good strength, and occurring at intervals of five or six minutes. On making an examination, the vertex was found presenting, and the parts in a normal condition. My first visit was made about 3 o'clock. For the next two hours the pains increased in strength, and the head slowly advanced. Not far from 6 o'clock, I detected some tenseness of the left labium—slight at first, but evidently increasing, and filling up the concavity of that side. The labium continued to enlarge, till, not far from 9 o'clock, I requested that Dr. B. Cutter might be asked to step in. He made a careful examination; remained nearly an hour, and left in the belief that the tumor would



not arrest the progress of the labor. The tumor continued to increase, and at midnight Dr. Cutter saw the patient again. It was then deemed best to arrest the pains, if possible, by morphia, till morning. A full dose was given, and repeated in an hour. They were not diminished, but continued to increase constantly. At 2 o'clock, A.M., May 20th, the following state of things existed: Pains frequent and severe, pulse frequent, skin becoming hot and dry, labial tumor so large as to push the head of the child entirely to one side of the vulva, and preventing further descent. The tumor presented a livid-purple color. Dr. Cutter made a free incision through the mucous membrane, and evacuated at least a pint of clotted blood, and, applying the short forceps, delivered the child alive. No hæmorrhage followed. The wound was closed with sutures, and perfect rest enjoined. The patient went on well till the night of the 21st, when I was summoned, and found her with fever, rapid pulse, and great tenderness of the abdomen. Although she was very pale from loss of blood, I opened a vein in the arm. After the bleeding, warm fomentations were applied to the bowels, and appropriate internal remedies were administered. At my next visit, I found an abatement of the fever, and a diminution of the tenderness. From that time she did well, and made a perfect though rather slow recovery. The child (a boy) has done well, and is one of the most stirring little fellows seen on Pleasant Street.

On inquiry of the oldest members of the Society, they said they had met with no similar case in their practice.

*Woburn, Dec., 1860.*

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## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

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BOSTON: THURSDAY, APRIL 11, 1861.

FIRST PRACTICAL USE OF ETHER IN SURGICAL OPERATIONS.—The following communication is of special interest, coming as it does from one of the claimants to the exclusive credit of the introduction to the world of sulphuric ether as an anæsthetic. It does not, in our opinion, invalidate in the least the claims of either of those gentlemen, but it is of considerable importance as a matter of history.

*Messrs. Editors,*—At the request of the Hon. Mr. Dawson, U. S. Senator from Georgia, on March 8th, 1854, I called upon Dr. C. W. Long, of Athens, in Georgia, while on my way to the Dahlonega gold mines, and examined Dr. Long's evidence, on which his claims to the first practical operations with ether in surgery were founded, and wrote, as requested, to Mr. Dawson, who was then in the U. S. Senate, all I learned on the subject. From the documents shown me by Dr. Long, it appears that he employed sulphuric ether as an anæsthetic agent—

1st, March 30th, 1842, when he extirpated a small glandular tumor

from the neck of James M. Venable, a boy in Jefferson, Georgia, now dead.

2d, July 3d, 1842, in the amputation of the toe of a negro boy belonging to Mrs. Hemphill, of Jackson, Ga.

3d, September 9th, 1843, in the extirpation of a tumor from the head of Mary Vincent, of Jackson, Ga.

4th, January 8th, 1845, in the amputation of a finger of a negro boy belonging to Ralph Bailey, of Jackson, Ga.

Copies of the letters and depositions proving these operations with ether were all shown me by Dr. Long, who stated to me that his account books, with the original entries and charges, were in the hands of his attorney at Jefferson, his former residence, for the purpose of having his dues collected by him, and that he would show me the book when I visited Athens at a future day. He also referred me to physicians in Jefferson, who knew of the operations at the time.

I then called on Profs. Joseph and John Le Conte, then of the University of Georgia, at Athens, and inquired if they knew Dr. Long, and what his character was for truth and veracity. They both assured me that they knew him well, and that no one who knew him in that town would doubt his word, and that he was an honorable man in all respects.

Subsequently, on revisiting Athens, Dr. Long showed me his folio journal, or account book, in which stand the following entries:—

“James Venable,

March 30th, 1842, Ether and excising tumor, \$2.00

May 13th, Sul. Ether, . . . . .25

June 6th, excising tumor, . . . . .2.00”

On the upper half of the same page, several charges for ether sold to the teacher of the Jefferson Academy are recorded, which ether Dr. Long told me was used by the teacher in exhibiting its exhilarating effects, and he said the boys used it for the same purpose in the Academy. I observed that all these records bore the appearance of old and original entries in the book. Of that I have no doubt. The only question is, Was the ether thus charged to Mr. Venable employed by inhalation for the purpose of preventing pain, and was it actually so used in the surgical operations charged at the same time?

The proofs of this must be in the statement of Dr. Long, supported by affidavits of the parties on whom the operations were performed, and who witnessed them. These documents, as above stated, I have seen in the hands of Dr. Long, or rather copies of them, for the originals were sent to Dr. Paul Eve, of Augusta, and were lost by him, so that they did not appear in the Southern Medical Journal, then published by that gentleman. On asking Dr. Long why he did not write to me, or make known what he had done, he said, when he saw my dates he perceived that I made the discovery before him, and he did not suppose that anything done after that would be considered of much importance, and that he was awakened to the idea of asserting his claims to the first surgical use of ether in operations, by learning that such claims were set up by others for this merit, and consequently he wrote to the Georgia delegation at Washington, stating the facts which Senator Dawson had requested me to inquire into.

I have waited, expecting Dr. Long to publish his statements and evidence in full, and therefore have not before published what I learned



from him. He is a very modest and retiring man, and not disposed to bring his claims before any but a medical or scientific tribunal.\* This he has done, in the State Medical Society of Georgia, as appears by their records at Savannah. [See Southern Medical Journal, Augusta, Ga.]

Had he written to me in season, I would have presented his claims to the Academy of Sciences of France, but he allowed his case to go by default, and the Academy knew no more of his claims to the practical use of ether in surgical operations than I did.

*Boston, April 3, 1861.*

CHARLES T. JACKSON, M.D.

THE LATE DR. STRONG.—The death of Dr. WOODBRIDGE STRONG, a few days since, was an event not unexpected. He had been failing in health for two or three years past from a chronic cerebral affection, which incapacitated him for the practice of his profession, and which at last proved fatal. He may be said to have ranked among the oldest practitioners of Boston, and for many years to have had a fair share of professional business, both surgical and medical. The following brief sketch of him is from one who knew him well.

“Dr. Strong has been obliged by disease to withdraw himself from the practice of physic for a long time, and has, within a few days, died. The writer’s acquaintance with Dr. S. began many, many years ago. He was a pupil of the late Prof. Nathan Smith. Dr. Smith was called to Boston to operate for cataract. He had Dr. Strong to assist him; and the writer was asked to be present. After the operation, the care of the patient devolved on Dr. Strong. The patient was one of the wealthiest and best-known men among us. This anecdote is given as showing the confidence manifested towards Dr. S., both by his master in medicine, and by the patient.

“Dr. Strong had moral and intellectual qualities which will be remembered by those who knew him. Among these, were decision of character and self-reliance, a common copartnership, and never threatening a dissolution. His opinions were parts of himself, woven into his very mental constitution. His voice was gentle and low, and his manner singularly quiet. His convictions were too fixed to require noise in their expression. There was not wanting emphasis in his deliberateness, and showed you he was alive with and to his thought. This confidence in himself gave strength to his logic, and to his philosophy. He was a student in books, and at the bedside; and his statements of disease showed you he had not studied in vain. You might question his theory, but you could not deny its reasonableness. Notwithstanding his strong mind, and careful philosophy, his books and his clinics, he had very little influence among us. Our conservatism and conventionalisms would seem to have had but little of his respect; and, than such antagonisms, what could be more fatal to public influence, or wide confidence? He became to the popular medical philosophy, a professional dreamer, or enthusiast, or something worse, and was left in his own field, to do his own work in his own way; and he did it valiantly.

“It was in practical medicine Dr. Strong was most alone. He had his inspiration here, in one or two professional friends, and at their

\* He proposed going before the United States Medical Association, but was informed that no disputes could be examined into by that Society.

death he was literally alone. Like many neophytes, he went in faith and in practice somewhat beyond his teachers. His doses were absolutely fabulous. Disease to him was a giant; for it could subject giants to itself; and he attacked it with gigantic remedies, in gigantic doses. The writer has his recipes. He has talked with the doctor and his patients about his doses. The reply from both has been that there has not been anything destructive or violent in their operation. They have been gentle in their strength. In the practice of others amongst us, it is in their weakness. Abandoned patients have taken his, and have been saved from what seemed coming death. One of his teachers was called to see a patient with dysentery, who had been "given over" by her regular attendant. He wrote for, Hyd. submuriat.,  $\mathfrak{z}\text{i}$ ., with orders to give it at once. Next morning the patient was found convalescent. The dysentery had ceased. Recovery rapid, and perfect. This is not a fable. The *in medio tutissimus ibis* doctrine had no place in Dr. Strong's faith or practice. He was as far from the middle as are the latest or newest medical Platonists, for both are as far as they can be. His was not an *expectant* faith, in which nothing is *looked for*, and so nothing done. He had on his armor, and was ready to do battle in the service for which it was worn, and battle he did. Dr. Strong was a student and a scholar, and his interest in early study did not abate in the midst and pressure of professional office.

"Dr. Strong was not without professional respect or kindness. His doctrines made him no enemies. He was a member of the Medical Improvement Society of Boston, and the writer well remembers the clearness and strength with which he made his communications at its meetings. He was long a Councillor of the Massachusetts Medical Society, and a faithful Treasurer.

"There is something to me very pleasant in the memory of strong, decided, fearless characters—of those who pursue their object for the love of it, and quietly submit to so much of martyrdom as comes of their faith and practice. The professional man is always liable to become as one of the new iron-sided vessels of war, cased and caged in, by outside influences which nothing can penetrate. He who falls into the arms of our Mrs. Grundy is truly a gone man. Dr. S. did not.

"Such men as Dr. Strong play important parts in the structure of society, whether professional or other. Dull indeed would be the world were it otherwise. W. C."

April 6th, 1861.

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NICHOLS & Co.'s PHARMACEUTICAL PREPARATIONS.—We have received from the establishment of James R. Nichols & Co., several remarkably fine medicinal preparations, which we have carefully examined, and found in the main to be quite pure and equal to those produced in any part of the country. Messrs. Nichols & Co. have been at much expense in procuring the most approved apparatus, and their facilities are such at present that they are enabled to manufacture ether, chloroform, the salts of iron, and many other of the more valuable medicinal preparations on an extensive scale. It has been quite a prevalent notion among physicians and druggists that New England must be dependent upon Philadelphia and the European laboratories for the nicer preparations, and we are glad to be able to satisfy ourselves that these can be produced in Boston as well as elsewhere.



TO EACH AND EVERY MEMBER OF THE MEDICAL PROFESSION IN BOSTON AND THE PARTS ADJACENT.—“*Monsieur, parlez vous, Français ?*” “*Pas beaucoup.*” “*Eh bien ! I can speak Inglis ver’ leetl’.*” Such is the introduction and rejoinder, in some instances at least, of a certain very polite Frenchman and his collocutor about this time in our city, the scene being the office of any given physician. The polite Frenchman goes on to inquire if the said physician is in the habit of treating female diseases. Being answered usually in the affirmative, he proceeds in most touching terms to speak of the case of a young, beautiful and interesting French girl, whose mother, a widow, *very rich*—doting on her as her dearest treasure—is about bringing her to Boston to put her under your especial care, having heard of your great professional reputation. In one instance the wealthy widow hailed from Canada. The daughter, the idol of her affection, has raised blood. There is some female irregularity connected with it. The polite Frenchman knows no more, but the lady will consult you in a few days herself. Just as he is leaving you, he makes a few remarks complimentary to Boston. It is his first visit to this renowned city. He finds much to admire in its streets, its public buildings, the Common, &c. He accidentally mentions that he is travelling, as an agent for his brother, to introduce to stationers here a new platinum pen, electro-plated with gold. He happens, singularly enough, to have a box of them in his pocket, which he proceeds to draw out and exhibit. “Would you like to try one?” They look very well. “My dear doctor” (with a lofty air that defies suspicion), “I do not sell these things—but you can have this box for a dollar less than you can buy them at the stationer’s; you shall have them at the wholesale price, *as a special favor.*” This is the picture of a scene which occurred here last June, and such a scene, we learn, occurred here this very week. Most obliging and delicate Frenchman!—not to say most astute and ingenious! As he departed in June last, returning the unsold pens to his pocket, a cloud passed over the picture which our ardent imagination had drawn, of the beautiful, interesting and lucrative young French girl! A cloud, alas! foreshadowing the disappointment which the future only too truly verified. She never came! But he, the pen-vender, has come again. Brother physicians, we would spare you the bitterness of unanswered hopes. The pens may be very good. Buy them, if you like, *but you will never write any prescriptions with them for that tender French orphan!*

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WE most gladly give place to the following communication, showing that we have unintentionally done injustice to Messrs. Blanchard & Lea. It would give us great pleasure to admit the same injustice to any other American publishers of foreign medical works, if they will give us the opportunity.

AUTHORS AND PUBLISHERS.—*Messrs. Editors*,—I noticed in your issue of March 28th, some remarks relative to the management of American publishers in reproducing foreign works. I confess to having often entertained the same feelings as you express, when you say—“We never open an American reprint of an English medical work, without a feeling that the publishers are guilty of little short of absolute piracy in thus coining money from the unrequited labors of our brethren on the other side of the water. The practice is entirely unworthy of

the encouragement of a noble and liberal profession, such as ours ought to be. The publisher who initiates, in medical literature, the practice which Messrs. Ticknor & Fields, of this city, have so honorably pursued in other departments, would deserve and receive the lasting honor of the whole profession."

That "piracy" of the sort to which you allude, has been extensively carried on, is not to be denied; ample opportunity has been afforded to the profession of observing the fact. But I hope there are, now, numerous exceptions to the unscrupulous practice of appropriating the literary property of authors without remunerating them. I am able to speak confidently for one publishing house, in regard to this matter, and have great pleasure in doing so. I refer to Messrs. Blanchard & Lea, who have long been in the habit of reprinting foreign medical works from sheets furnished by the authors or publishers, and to whom compensation has been duly made. This course is still pursued by this enterprising firm, and is highly to their credit. The fact should certainly be known, in justice to them; and I trust the time may come when the same thing can be said of all medical-book publishers.

W. W. M.

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THE CYSTICERCUS CELLULOSUS TRANSFORMED WITHIN THE ORGANISM OF MAN INTO THE TÆNIA SOLIUM.—It will be remembered that M. Küchenmeister, a very patient experimentalist, endeavored to prove this transformation first upon animals and subsequently upon a human being. In the latter case, the cysticercus, concealed in food, was given to a woman lying under sentence of death, 72, 60, 36, 24, and 12 hours before execution, when four young tæniæ were found in the duodenum, and six more in the remainder of the intestinal canal. Experiments were also made, some time back, by a young man under the observation of M. Leuckart, and by M. Humbert, when fragments were discharged two or three months afterwards. But doubts might be raised respecting all these experiments, especially as to the previous existence of any ova within the intestinal canal. M. Küchenmeister, however, had an opportunity, towards the latter end of 1859, as stated by the *Deutsche Clinique*, of renewing the experiment in conjunction with Dr. Siebenhaar. The first ingestion of cysticercus took place Nov. 24th, 1859; and the second on the 18th of January, 1860. The prisoner was decapitated on the 31st of March; and at the autopsy it was found that half the cysticerci that had been swallowed were transformed into flat worms, of which eleven presented mature segments. Some of the latter were still connected; the others were detached, and moved towards the lower part of the canal. There were eight other worms, which had not ripened as yet. All these parasites were comparatively small, the longest not reaching beyond five feet.—*London Lancet*.

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A NEW ANÆSTHETIC.—The following letter to the *London Lancet* of March 2d, from John Wilmshurst, Surgeon of the ship *Marathon*, contains an account of the remarkable anæsthetic powers of turpentine:—

"Believing that I have discovered a valuable anæsthetic and anodyne in an article of our pharmacopœia already appreciated and extensively used as a stimulant, diuretic, anthelmintic, &c.—viz., the ol. terebinthinæ rect.—I trust you will deem the few observations I shall here make, worthy of insertion in your extensively-circulating periodical.



"The first case in which I tried its effect was that of Mrs. H., the matron on board the emigrant ship *Indiana*, of which I was then surgeon-superintendent. About twelve months ago, having exhausted my little stock of chloroform, and the patient suffering from violent neuralgia in the course of the supra-orbital nerve, it occurred to me that of the remedies at hand the most likely would be the vapor of turpentine. This I immediately applied, sprinkled on a handkerchief, to the nostrils, similarly to chloroform, and was surprised to find it not merely soothe and allay the pain, but, after a few inhalations, produce a gentle sleep and state of anæsthesia, from which she awoke without any headache or other unpleasant symptoms, and quite free from pain.

"I may mention, without going into detail, that I have since tried it in one or two slight but painful operations—as extracting a broken needle from a sensitive part, and in some cases of cramps, convulsions, nephralgia calculosa, &c. Its effect seems to be to allay nervous irritation, spasm, and pain, without deranging the action of the heart, and to produce a calm, anæsthetic sleep. The remedy being simple, inexpensive, and easy of application, will, I trust, induce some of your numerous readers, more skilled and with better opportunities of testing its value, to experiment in the direction I have indicated, and to publish the result for the benefit of suffering humanity."

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DEATH OF DR. ARAN.—Dr. Aran, one of the most promising and talented physicians of the French metropolis, has just died, after a short illness, at the age of 44. The deceased had a great many friends in this country, who will certainly be much grieved on hearing of this sudden calamity. Dr. Aran was the translator of Dr. Henry Bennet's work on the Diseases of the Uterus, and had lately published valuable lectures on the same diseases. By dint of hard work, undoubted merit, and competitive examinations, he had become physician to the St. Antoine Hospital and deputy professor at the Faculty; and had won for himself, by various monographs on Diseases of the Heart, Paralysis, and quite recently by the publication of his Clinical Lectures on the Diseases of Women, the encomiums of the profession, both in his own country and abroad. He was suddenly removed by death just as he was beginning to reap the well-earned reward of his successful labors. He leaves the memory of a very active and honorable life.—*London Lancet*, March 2d.

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MEMORIAL ON SMALLPOX.—Eight thousand extra copies of the Report of the Committee on the Judiciary, to whom was referred the memorial of the Boston Sanitary Association, relating to smallpox, have been ordered to be printed for distribution by the Legislature of Massachusetts.

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PALMER'S ARTIFICIAL LEG.—We are glad to learn that the patent for this celebrated invention, a recommendation of which has been signed by the Surgeons of the Massachusetts General Hospital, has been recently renewed.

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LONGVIEW (OHIO) LUNATIC ASYLUM.—The first annual report of this institution represents it as now well established, the injury done to the building in May last by a tornado having been repaired, and 422 patients having been received since its opening. On the 1st of November last, there were 334 inmates. The entire cost of the building, which contains nearly 600 rooms, was \$150,000.

Dr. E. J. FOUNTAIN died in Davenport, Scott Co., Iowa, on the 29th of March, in consequence of an overdose of chlorate of potassa, which he took on the 22d of the same month. About two drachms of the salt were found in the urine on the first day. At the *autopsy* there was found inflammation of the alimentary canal, especially the stomach and jejunum; also inflamed, enlarged and obstructed kidneys, containing crystals.

At the annual commencement of the New Orleans School of Medicine, the degree of M.D. was conferred on seventy-six members of the class attending the last session, which class numbered two hundred and thirty-six.

DR. GENDRON, of Chateau du Loir, France, has just died of croup, after opening the trachea of a young woman suffering from that complaint. It is said that Dr. Gendron had had diphtheria before.

### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, APRIL 6th, 1861.

#### DEATHS.

	Males.	Females	Total.
Deaths during the week, . . . . .	34	32	66
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	36.8	35.2	72
Average corrected to increased population, . . . . .	..	..	80
Deaths of persons above 90, . . . . .	..	..	..

#### Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
15	1	3	2	0	0	0	1	2

#### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	30 261	Highest point of Thermometer, . . . . .	53°
Highest point of Barometer, . . . . .	30 620	Lowest point of Thermometer, . . . . .	..
Lowest point of Barometer, . . . . .	29.702	General direction of Wind, . . . . .	S.W. & N.N.E.
Mean Temperature, . . . . .	36°.2	Am't of Rain (in inches) melted snow . . . . .	2.318

April 2d and 3d, heavy fall of snow; depth, 17 to 18 inches.

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 585.

	BAROMETER.				THERMOMETER.			SNOW & RAIN.		Mean Amount of Cloud. 0 to 10.
	7 A.M.	2 P.M.	9 P.M.	Mean Height.	7 A.M.	2 P.M.	9 P.M.	Time 10 minutes.	Men- sure.	
Monday, March 25,	29.19	29.15	29.05	29.34	47	59	51	4 hours, 10 minutes.	1.54	8.5
Tuesday, " 26,	29.06	29.03	29.17		38	37	33			
Wednesday, " 27,	29.47	29.51	29.55		28	42	38			
Thursday, " 28,	29.46	29.15	29.18		38	58	53			
Friday, " 29,	29.16	29.18	29.41		43	43	36			
Saturday, " 30,	29.67	29.73	29.70		33	46	40			
Sunday, " 31,	29.65	29.49	29.23		36	45	39			

It will be noticed, in our advertising sheet, that Dr. Wells's new Epitome of Braithwaite is on sale at this office.

ERRATA.—Page 207, line 4, for "Samuel C. Cabot," read *Samuel Cabot, Jr.*—Page 210, 15th line from bottom, for "eye" read *lye*.

BOOKS AND PAMPHLETS RECEIVED.—Fourteenth Annual Report of the Surgeons of the New York Eye Infirmary.—Transactions of the New York Academy of Medicine. Vol. II., Part 4.

COMMUNICATIONS.—Tracheotomy.—Sickness from eating Baked Peas.

MARRIED.—In Leominster, March 28th, Dr. C. C. Field to Martha Joslyn, both of L.—In New Bedford, April 3d, Dr. Stephen M. Gale, of Newburyport, to Mary H. How, of Haverhill.

DIED.—Dr. John L. Smith, of East Lyme, Conn., aged 77 years.

DEATHS IN BOSTON for the week ending Saturday noon, April 6th, 66. Males, 34—Females, 32.—Accident, 1—apoplexy, 3—inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 1—bronchitis, 2—cholera infantum, 1—cholera morbus, 1—consumption, 15—croup, 1—debility, 1—diphtheria, 2—dropsy (of the heart), 1—dropsy of the brain, 3—scarlet fever, 3—typhoid fever, 1—gas-tritis, 1—hæmoptysis, 1—disease of the heart, 5—infantile diseases, 3—intemperance, 1—congestion of the lungs, 3—disease of the lungs, 1—inflammation of the lungs, 2—old age, 1—paralysis, 1—puerperal disease, 1—sore throat, 2—scrofula, 1—syphilis, 1—unknown, 4.

Under 5 years of age, 26—between 5 and 20 years, 5—between 20 and 40 years, 19—between 40 and 60 years, 3—above 60 years, 8. Born in the United States, 49—Ireland, 17.



THE  
BOSTON MEDICAL AND SURGICAL JOURNAL.

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No. 11.

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CASE OF PLACENTA PRÆVIA.

BY HENRY AUSTIN MARTIN, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

MRS. S., German, aged 57, has had four children. Consulted me about the middle of November, 1860, at my house, in regard to hæmorrhage from the uterus, which had commenced during the previous day while she was walking in the street. The flooding was not preceded or accompanied by pain, or any other symptom except of prostration from the loss of blood. There had been no hæmorrhage, menstrual or other, since the time at which she supposed that conception had taken place, nor had she noticed any symptoms different from those experienced in former pregnancies. At the time she consulted me, she was in the sixth month. The hæmorrhage had been quite considerable, by her own statement, and this was fully confirmed by her pallid aspect, and rapid, compressible pulse. She was directed to maintain the recumbent position as much as possible, to avoid all violent and unusual exertion, observe an unstimulating diet and regimen, both physical and mental, and to send to me immediately if the hæmorrhage (then almost ceased) should increase or return. I did not, however, hear from her till the afternoon of the 12th of February, the normal term of pregnancy having then fully expired.

I found her lying in a large mass of coagulated and fluid blood, flooding having commenced some twenty minutes before, and having been very profuse. On making an examination of the vagina, I found its lower portion occupied by loose coagula, which I removed, but a denser and firmer coagulum occupied its upper part and prevented an examination of the condition of the os uteri. As the "pains," though regular, were feeble, and had only commenced an hour before, as the os uteri was very high up and almost certainly but very partially dilated, I preferred not to disturb this coagulum, which I felt well assured formed a more effectual barrier to further hæmorrhage than any I could substitute for it.

The flooding still continued, but not to an extent involving immediate peril; I therefore preferred to watch the case till the dilatation of the os and its descent to a position more accessible should render interference more feasible and efficient, or till increased and imminent danger might make interposition necessary even under unfavorable conditions.

I remained with the patient for three hours, during which time the flooding continued slight, the coagulum over the os uteri still retaining its position. I left her, with strict injunctions to her attendant that she should be kept perfectly quiet, in a recumbent position, with the hips raised, and that I should be instantly sent for should any change or increase of the symptoms occur. (I should not have left her at all, were it not that my residence was but two or three seconds' walk from hers.) I promised to return in one hour, but before that time elapsed was summoned. I found that the coagulum had been expelled; the os uteri was inaccessible to the finger, but by introducing the hand into the vagina, which was capacious, I found it dilated to the size of a half dollar; anteriorly about two fifths of this space was occupied by the edge of the placenta, behind which the bag of membranes was protruded at each contraction of the uterus. The hæmorrhage was extreme, the pulse of the patient becoming at one time for several minutes imperceptible. The edge of the os was quite unyielding, and being so, and to such a slight extent dilated, version was out of the question, and the flooding was too considerable for further delay. With a view to ultimately availing myself of that means of delivery, I concluded to rupture the membranes, hoping for the increased uterine action which usually follows that operation, and that thereby the head of the child would descend and be firmly engaged in the pelvis, and the bleeding edge of the placenta compressed to a sufficient degree to prevent dangerous flooding till delivery could be accomplished.

Before taking this step, I considered it proper to avail myself of the counsel of Dr. Henry Bartlett, who resides in the vicinity, and to whose sound judgment and extensive experience I am only too happy to acknowledge my repeated and grateful obligations. Dr. Bartlett fully acquiesced in my views, and I accordingly ruptured the membranes with the finger nail, plugged the vagina very carefully with soft fragments of old linen, and gave the patient an infusion of about one drachm of the whole grains of ergot in a teacupful of boiling water. The effect of the ergot was perceptible within twenty minutes of its exhibition, the "pains" becoming more frequent, stronger, and of longer continuance. At the end of a little more than an hour her attendant announced to me that the *tampon* had been expelled from the vagina. On examination, I found the os fully dilated and the child's head well advanced, so that the forceps could be applied with facility. I did not doubt that my patient could have got through her labor without



instrumental aid, but she was still flooding considerably, she had, unavoidably, lost a very large amount of blood, and taking into consideration the probability that it might be an hour or perhaps more before delivery would be accomplished naturally, and the certainty that during that time the additional hæmorrhage would be sufficient to seriously retard her convalescence and perhaps permanently impair her health, I considered myself called upon to interfere. I applied the forceps (Denman's) with ease, and the child was delivered at once without difficulty. The uterus was firmly contracted, and the placenta was at once and easily removed.

The patient was for several days troubled with headache, tinnitus aurium, and faintness on assuming anything approaching an upright position, but made an excellent recovery, and has now (March 4th) for several days been able to sit up all day, and even to a certain extent attend to her household cares.

This, I believe, is all that need be said, except to call attention to the change which has taken place in that portion of the edge of the placenta which was attached over the os uteri. It is very evident that this change of structure prevented further hæmorrhage from that part of the placenta from which it had occurred in November, and that it was only when further dilatation of the os detached a further and unprotected placental surface that renewed flooding took place.

I omitted to speak of the infant. It made one deep inspiration, and but one after being born, but the heart was not pulsating, nor could the slightest evidence of its action be detected by careful auscultation. Artificial respiration and Marshall Hall's method were faithfully employed, but without the slightest results, either in establishing to any degree the action of the heart or inducing a repetition of the respiratory act. The body of the child was of a marble whiteness, it was perfectly developed and of more than average size; there seemed no cause for its death but the evident and sufficient one of anæmia. That this was the cause of death, was curiously illustrated by the fact of the single act of respiration, the apparatus of which responded to the stimulus of the air, but the heart did not act because of its air; blood, there was none. One link was wanting, and the mystic chain of vitality was irremediably imperfect. I have had frequent opportunity to study the beautiful phenomena connected with the establishment of the functions of life in stillborn children, and of these opportunities I believe I may claim to have conscientiously availed myself, never ceasing my efforts at resuscitation while there was a shadow of hope; but I do not remember before to have seen a case in which respiration was unaccompanied by action of the heart. As is often noticed, action of the heart is the first result of our efforts, respiration not being established till afterwards; indeed, very often it is not established at all, even to the slightest degree. I have frequently succeeded in inducing action of the heart, and in maintaining it even

for hours, without a single act of respiration accompanying that action. There are, of course, questions of great physiological interest connected with this whole subject, and particularly as regards the phenomenon to which I have alluded in this case as illustrative of death by anæmia, but they are foreign to my present purpose, even if leisure permitted.

*Roxbury, March 4th, 1861.*

## PATHOGENY AND THERAPEUTICS OF CEPHAELIS IPECACUANHA.

BY EDWIN SANFORD, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

BRETONEAU found, by experiment, that the powder of ipecacuanha, when applied to a cutaneous surface deprived of its epidermis, excited a severe topical inflammation; that a small quantity blown into the eye of a dog caused an intense phlegmasia, sometimes resulting in perforation of the cornea. Hence he inferred that the drug produces vomiting and purging in consequence of the inflammatory influence exercised upon the mucous membrane of the stomach and bowels. A foreign magazine records the case of a druggist's assistant, who was poisoned by the inhalation of disintegrated ipecacuanha. Vomiting occurred, followed by a sense of constriction within the chest. In an hour there was a violent feeling of suffocation, attributed to a contraction in the throat and trachea. Successive paroxysms of oppression and anxiety supervened, until his face became cadaverous in appearance. His medical attendants bled him, and gave assafoetida and belladonna, with some transient benefit. In five hours, a fresh attack came on, with augmented pectoral embarrassment. A decoction of uva ursi and the extract of rhatany procured relief, and after a few days of slight dyspnœa the patient recovered.

Dr. Roberts, of Dudley, Scotland, says, in a communication to Pereira, "If I remain in a room where the preparation of ipecacuanha is going on, I am sure to have a regular attack of asthma. In a few seconds dyspnœa comes on in a violent degree, attended with great weight and anxiety about the præcordia, and I obtain no relief until copious expectoration takes place." All the animals upon which Magendie experimented, exhibited signs of inflammation in the air-tubes. The drug seems to act upon the various ramifications of the pneumogastric nerve, producing functional derangement within the limits of its distribution. The pathological results are capillary engorgement and inflammatory redness. Mérat and Delens, Vol. III., page 646, say: "The incisive action of ipecacuanha is quite evident, and it is most frequently depended upon by modern practitioners. Thus, it is prescribed in small doses for bronchial derangements, for an excess of mucus in the lungs,



flaccid condition of the pulmonary parenchyma and serous inflammation of the lungs. It procures a more profuse and easier expectoration by increasing the exhalation of the pulmonary mucous membranes in cases where it is deficient, and extinguishes it by its tonic action whenever the expectoration is too profuse. The drug was first made known at Paris, about 1684. Helvetius, the grandfather of him whose widow Ben Franklin admired (the widow of the author of the book *De l'Esprit*), then the pupil of Afforts, experimented with the root, making some notable cures of dysentery. The Dauphin of France, the King's brother, being sick with this disease, the King sent his own physician, d'Aquin, to arrange with Helvetius for the disclosure of a knowledge of his nostrum. For the secret he received a thousand pounds and advancement to important medical appointments. The poet Akenside first recommended the drug for spasmodic asthma, an imputed virtue still believed in. A practitioner of fifty years' experience remarked to us, that with ipecacuanha and opium he could almost dispense with the rest of the materia medica. Trousseau and Pidoux seem to think quite as well of ipecacuanha. They say, *Op. cit.*, Vol. I., p. 607, "Experience shows that almost all the dangerous symptoms which occur during confinement yield to ipecac. We mention this, not on the authority of books, but of what we have seen and done. For five years past we have annually attended sixty women in labor at the Hotel Dieu; we have never failed to give every woman who had been recently confined a dose of ipecac., no matter with what derangement she may have been affected, and we can affirm that we have never seen the least trouble arise from the practice; on the contrary, in most cases, we have either effected a cure or perceptible improvement."

*Attleboro', March 2d, 1861.*

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#### ON SOME OF THE CAUSES OF DISEASES.

BY JOSEPH COMSTOCK, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

THE causes of many cases of disease are certainly very obscure. We once looked towards chemistry as a source from which much was to be expected; but how vain and fruitless the result, when we find that no ultimate distinction betwixt the poison of the viper and gum Arabic has hitherto been detected! Of our very changeable climate, it has been said that we lie down in July and rise in December. Consumption is the greatest outlet of human life; it is hereditarily endemic to the British Nation, and also to their descendants in all parts of the world—witness the United States, Canada, Malta, the East and West Indies, Bermuda and Gibraltar, indicating that variety of climate has little to do with its prevention, and that it is a permanent disease, unlike the plague and

sweating sickness of London, which are now matters of history only; but it is a curious fact respecting the latter malady, that Englishmen abroad in foreign countries were affected with it, while the people they were among were entirely exempt; another instance, this, of that nation's proneness or tendency to retain an hereditary predisposition to certain diseases.

The blood, secretions, and even breath of one being or animal, seem to be congenial and adapted to that same being alone; to its constitution, idiosyncrasy, health, and even life.

The transfusion of one human being's blood into the bloodvessels of another, has usually been deleterious, if not fatal; even so, and surprisingly so, has been the transfusing of the blood of a sheep into the veins of a dog.

Crowded apartments in which men or beasts were congregated, have proved the hot-beds of disease; but not in such apartments alone are disease and death generated. From the remotest antiquity armies in the open air have been marked in their marches with pestilences; witness those of Moses, David, Pericles, and our own in 1812, and during the war with Mexico. Ship fever seems to be generated on board ships while they are at sea, and to become contagious after their arrival in port.

Cities in which maladies so much prevail, and country places in which health so much abounds, are phenomena illustrative of the pernicious effects of the amalgamation of a variety of breaths and effluvia. Voltaire, long ago, remarked how little physicians have to do in the country, and how much they have to do in cities.

We are told that the glanders in horses arises mostly in large stables, and the dog distemper in large kennels; also, that the British, in attempting to send sheep in numbers across the Atlantic, during their war with us, lost them all, when crowded in a ship, by what one of their medical writers calls a *febrile disease*. To the same effect, Sir Gilbert Blane informs us of the death and destruction of horses on board of horse transports, in the expedition to Quiberon in 1795.

Influenza has repeatedly affected persons without any other assignable cause than that of being present in crowded assemblies; afterwards the disorder might extensively spread by contagion.

Of infection from diseased breath, Dr. Paris notices an instance under *aërial* poisons; it is the case of a gentleman in perfect health, who became salivated in consequence of sitting only a single hour by the side of a person who was in a state of mercurial ptyalism, in order to receive lessons in botany.

The mysterious and long-contested origin of syphilis, which Ferdinand Columbus, son of the discoverer of the New World, as well as Astruc, Gietanner and Van Swieten, imputed to importation from the American aborigines, we must impute to have arisen and been generated by the breath, intercourse and effluvia of the nations of the Old and New Worlds commingled together; for it



seems to be well established by reliable authorities that syphilis was utterly unknown among the Indians, and also if not utterly unknown in Europe, which is contended by some, at least never known to prevail so extensively, and with such malignant symptoms, as after the return of the Spaniards from their great and grand discovery, accompanied with some of the natives.

This was in 1493, and soon syphilis, accompanied with more pestiferous symptoms than are ever now known to attend it, became an epidemic in Europe; indeed, so malignant were its phenomena and pestilential its appearances, that it obtained the title of *pestis inguinalis*, and it appears that the opinion prevailed that it might be communicated by the breath, without any sexual intercourse whatever, and even from one male to another by whispering in his ear, of which we shall presently adduce a notable instance.

The inhabitants of the 15th and 16th centuries are thought to have been peculiarly corrupt, debauched and given to unrestrained sexual intercourse; and hence the vast spread of the disease in question, which obtained the name of *grandgore*. What a picture of depravity does the following historic extracts present to view!

"Then lustful passions, ready compliances, with vicious and dissolute manners, were considered as accomplishments by the high and ordinary ranks of society in Church and State. Extant medical and historical works of that time unblushingly place among the victims of the *grandgore* the names of popes, kings, cardinals, bishops, &c." Further, that "one of the great charges brought by the House of Lords against Cardinal Wolsey, Prime Minister of Henry VIII., was that that he whispered in the Monarch's ear when knowing himself to be infected with that disease."

*Aura syphilitica* is a term we find in use in those days; and from the enormous depravity of those times we have a clue to the institution of monasteries and nunneries, whose inmates took upon themselves the vows of chastity.

Good and evil, it has been said, are ever in some degree commensurate; and with the discovery of America, the greatest of all human events, we must identify the introduction of a malady which was, and still continues to be, a scourge and sore affliction to the human race.

Whether a recent writer, William D. Purple, M.D., is not too sweeping in his conclusions when he refers all the diseases and disorders of the genital organs to the abuse, misuse, improper or excessive indulgence of those organs—such as disease of the prostate gland, displacement of the uterus, hydrocele, dropsy and enlargement of the ovaria, change of structure of the testicles, as well as functional action of the vasa deferentia, vesiculæ seminales and the urethra; and by sympathy the bladder, ureters and kidneys—may be doubted. Still, we agree with him that there is no organ of the human body that is not liable, by perverted action,

to work its own destruction; that the seeds of disease and death are lurking in every healthy organ, and only require a certain amount of excitement or excitability to arm them with suicidal power; these, and some other opinions of Dr. P., we may endorse and in course refer to. Mania from masturbation, as well as Mesmerism, Millerism, spiritual rapping, table-turning and table-lifting, will here occur to mind, as they all have afforded inmates to our insane retreats.

The writer seems to be peculiar in his ideas, that gleet following ing gonorrhœa, in some constitutions and under certain circumstances, by transfer or metastasis, may produce coma and death. Also that the abuse of the sexual organs in early youth will produce every variety of neuralgic symptoms, including epilepsy, coma, and perhaps end fatally at last.

But in this connection Dr. — comes in as a corroborator to Dr. Purple: *localities* and *coincidences* are very curious and very unaccountable. The birth and location of Hippocrates were not in the renowned city of Athens, nor in the religious city of Jerusalem, nor in the commercial city of Smyrna, but in the isolated little island of Cos. Dr. Denman, speaking of the Cæsarean operation, says, the oldest physician or surgeon of London could not recollect a case of this operation, nor had heard it spoken of by their predecessors; yet two cases, in the same street, occurred to the same gentleman, Mr. Thompson, one of the surgeons of the London Hospital, within a very short space of time.

Equally curious is it that thirty cases of a kind scarcely mentioned by our most comprehensive systematic writers, should have fallen under the care of one country practitioner in the circuit of his own practice of about thirty miles. Those cases were of *female* masturbation, or self-pollution, and the tact and talent of the gentleman were evinced in the result, for, after some stout denials, each one of the thirty was finally brought to confess the fact, and prove their physician's suspicions correct.

Most of these, by their own statements, commenced the practice at an early age; all but one, we are told, at or before twelve years old, and most of them at six or seven!

That the practice is not *always* solitary he tells us—"In twenty-four of the above cases, the practice was common to associate together for vicious indulgence."

The diseases induced by this enervating vice, we are told, were, leucorrhœa, pain across the pubis and back, retention of urine, weakness of the limbs, nausea, vomiting, loss of appetite, sometimes loss of the use of the limbs, painful menstruation, cough, difficult respiration; in one case, strangury. One patient, aged 30, contracted the habit at the age of ten years. "On being told of its effects and urged to abandon it, she replied, she would *if she could*."

Another, aged 37, unmarried, had been confined to her bed for



six years, and acknowledged that she had contracted the habit at an early age, "and had, in all probability, continued it to the present time," says the doctor.

Three of his patients had chronic ophthalmia, which he imputed to the same vicious indulgence, and thinks "that it is the most fruitful source of ill health among females." Hysteria was present in one or more of his cases, as well as chlorosis and mental imbecility in others.

Puerperal mania and child-bed convulsions have fallen under suspicion of the same kind of self-mismanagement in some instances—not in all.

The foregoing enumeration of sexual abuses brought to mind what Josephus, the Jewish historian, says of that most moral, excellent and religious sect of the Jews, far surpassing the Scribes and Pharisees, called *Essenes*, who were celebrated for their temperance in all things, and entire abstinence from all sexual intercourse, except for the sole purpose of the continuation of the human species:—noble exemplars for Christendom.

Man is the only animal that drinks while eating. Dyspepsia has been called a *national* disease with us; pyrosis may be classed in the same category; he that would steer clear of both, must avoid drinking while eating, according to Dr. Dickson, of South Carolina.

Cold is the most prolific of all the causes of disease—of internal inflammation, catarrhs, coughs, consumption, amenorrhœa, spotted fever, rheumatism, and infantile deaths. It was considered by Dr. Gregory as much of an evacuant as bleeding, or purging, as it robbed the body of heat. It affects persons of all ages, climates, temperaments and conditions.

Consumption, as before mentioned, is a disease hereditary to the British nation, and their descendants, wherever they have emigrated or placed themselves. And this hereditary predisposition to this inexorable outlet to human life, is called into action by not sufficiently protecting the body from cold; the disease being scarcely known in Russia, says Sir George Lefevre,\* notwithstanding the cold, and, as he says, very changeable climate, from their shutting out the cold air by their warm fur-skin dresses and *Russian stove* heated houses. Our fashions point to the grave by their insufficient protection of the neck, throat, and upper part of the thorax from winter chills and piercing cold; for here the most vital of all the vital parts are situated.

Dr. Trevison, of Italy, MM. Villerme and Milne Edwards in France, have ascertained that 66 infants out of every 100 die by being exposed to cold for the first few days after their birth. Reflect, mothers and nurses, that the little stranger is ushered into this cold world from a region of 98 degrees of heat; then aim, as

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\* Physician to the British Embassy to St. Petersburg.

far as possible, to maintain it in a climate like that in temperature from which it came.

Animal putrefaction, strange to say, as a cause of disease, is a contested point. In 1832, a prize essay fell under my notice, to which the prize was awarded, but which utterly denied its injurious effects. The award was made by the New York State Medical Society. The present writer published strictures upon this production, which contained other most monstrous medical heresies, in the *Boston Medical and Surgical Journal* of July 11, 1832, page 348, to which the reader is referred. But I must say that a gentleman, standing at the very acme of his profession both as a physician and surgeon, entertained the same opinion as the prize-writer, with regard to the innocuous nature of animal putrefaction; and as that gentleman never formed an opinion without plausible premises, I must here beg leave for a short episode.

It would appear that that gentleman's opinion was based upon the fact that no sickness followed the removal, entirely, of a vast cemetery in Paris, containing an innumerable multitude of dead bodies in all stages of decay.

Now I have to assume from this, and a vast number of similar events upon a smaller scale, that burying dead bodies in the earth lessens or entirely deprives them of the power to produce malignant, epidemic or contagious diseases, upon their being disinterred. I know that bodies dead of smallpox are buried away from public burying grounds, from the fear that in digging a new grave such bodies may be disturbed, and thus communicate contagion to the living; still, I have never known, heard or read, so far as I can now recollect, of a single incident of the kind. Yet it seems that such may have occurred, else the custom would probably not have been established; but it is still possible that it may have arisen from fear and not from fact; and there is another possible contingency, that some one else may have seen what I have not, and be able to correct me on this point.

But to resume, and to put a disputed point beyond controversy, I shall introduce a scrap of history, proving that animal matter above ground, in a state of putrefaction, has destroyed the human race by hundreds of thousands! as well as sheep, cattle, and even birds and wild beasts. It is taken from the Rev. Mr. Abbott's *Scriptural Natural History*. The author, after quoting the Bible as to the direful destruction occasioned by locusts, says:—

“A similar calamity happened to the Africans in the time of the Romans, and about 123 years before Christ. An immense number of locusts covered the whole country, consumed every plant and blade of grass in the fields, without sparing the roots and leaves of the trees, with the tendrils upon which they grew. These being exhausted they penetrated the bark, however bitter.

“After they had accomplished this terrible destruction, a sudden blast of wind dispersed them into different portions, and after



tossing them awhile in the air, plunged their innumerable hosts into the sea.

"But the deadly scourge was not then at an end; the raging billows threw up enormous heaps of their dead and corrupted bodies upon the long-extended coast, which produced a most insupportable poisonous stench. This brought on soon a pestilence, which affected every species of animals; so that birds, and sheep, and cattle, and even wild beasts, perished in great numbers, and their carcasses, being soon rendered putrid by the foulness of the air, added greatly to the general corruption and mortality.

"The destruction of the human species was horrible; in Numidia, 80,000 persons died; and on that part of the seacoast which bordered upon the region of Carthage and Utica, 200,000 are said to have been carried off by the pestilence."

Possibly, after such overwhelming testimony, medical men may be constrained to agree upon one point, to wit, that animal putrefaction above ground is pernicious to health, and destructive to life; and thus take away the imputation that courts and counselors bring against our profession, when they allege that no two of us agree upon any point, and that we are the very worst of witnesses.

*Lebanon, Ct., Jan. 2d, 1861.*

#### GLAUCOMA—HANCOCK'S OPERATION FOR THE DIVISION OF THE CILIARY MUSCLE—RESULT SUCCESSFUL.

[THE following cases are of special interest, as the operation of iridectomy is practised somewhat extensively at the present time with doubtful success. They are from the *American Medical Times* of April 6th, and are reported by F. J. BUMSTEAD, M.D., of New York.—Eds.]

Mrs. M., a widow, aged forty-three, who supports herself with her needle, applied at the Infirmary, November 16, 1860, for an attack of acute glaucoma in the left eye, supervening upon chronic choroiditis of several years' standing, and sympathetic disease of the opposite eye.

Her present attack commenced without apparent cause other than excessive use of the eyes six weeks ago; since which time she has suffered excruciating pain in the globe and temple, and has been reduced to an exceedingly debilitated condition by loss of sleep, and the low diet, depletion and seclusion injudiciously directed by her attending physician.

Upon examination, the left eye is found to be abnormally hard to the touch; its vessels much congested; the cornea cloudy; and the pupil somewhat dilated and immovable. The sight of this eye was lost several years ago from the chronic inflammation above mentioned. An attempt to ascertain the condition of the choroid and optic-nerve entrance proves unsuccessful, owing to the haziness of the cornea and lens, which obscures the deeper structures.

The opposite eye is intolerant of light, and watery, and its vision

impaired; thus showing that its integrity is threatened, and that immediate measures are required for the preservation of sight.

Having been disappointed with the result in several trials which I had previously made of iridectomy, as advised by Von Graefe for the relief of glaucoma, I determined to resort to Mr. Hancock's operation for the division of the ciliary muscle, which recommended itself by its simplicity and the little danger attending it; and believing that the affection of the right eye was due to sympathy with the left, I resolved to operate upon the latter. I accordingly placed my patient under the influence of ether, and, with a Beer's cataract knife, made a section of the conjunctiva and sclerotica radiating from the corneo-sclerotic juncture, midway between the inferior and external rectus, obliquely downwards and backwards to the extent of about the eighth of an inch. This procedure required little more than a simple puncture with the point of the knife, the blade being buried an eighth of an inch beneath the conjunctival surface. The incision was followed by the flow of about a drachm of blood from the choroidal vessels, and some of this fluid gained entrance to the anterior chamber, but was readily evacuated by separating the edges of the wound with the point of a director. I now closed both eyes with isinglass plaster, and ordered two grains of quinine three times a day, together with a nourishing diet and an opiate, if required.

Upon seeing my patient the following day, I found that the effect of the operation had been almost magical. Since awaking from the influence of the anæsthetic, she had been entirely free from the pain which had harassed her for six weeks; she had had a good night's rest without the opiate; the intolerance of light had disappeared, and the eye was much less congested. Of course, no improvement of vision was to be expected in the left eye, which had been blind for several years. Mrs. M. remained at the Infirmary for a week after the operation, during which time she continued to improve, and when she left, the inflammation had entirely subsided, and the sight of her right eye was completely restored. I heard through her physician, in the early part of January, that she had continued well up to that time.

This is the first case, so far as I know, in which Hancock's operation has been performed in this country; and although a single trial is, of course, insufficient to justify a decided opinion, yet the successful result in this instance, taken in connection with the cases reported by Mr. Hancock, affords reasonable ground to hope that this new method will prove of great value in the treatment of one of the most dangerous diseases to which the eye is subject.

These favorable anticipations have been strengthened by the result of another case, which I was requested to see in consultation with my friend, Dr. Abram DuBois, on the 14th of February. The patient, a merchant of this city, about 65 years of age, lost the sight of his left eye from glaucoma several years ago, within a week after the commencement of the attack. At the time I saw him the same disease had appeared in the right eye; he was suffering severely from circum-orbital neuralgia; and his vision was so obscure that he could with difficulty distinguish between small objects, as, for instance, between a pocket-knife and a pencil case. He had been freely cupped upon the temple, the night before, with very little, if any relief. Hancock's operation was performed by Dr. DuBois without the assistance of an



anæsthetic, and in fifteen minutes afterwards the pain had entirely ceased. On the second or third day the patient could read newspaper type, and within a week insisted upon going to his office and attending to his business. In this case, the aqueous humor escaped and slight prolapse of the iris took place, but there was no loss of blood.

In each of these cases the improvement in the symptoms following the operation might possibly be ascribed to the relief of the tension of the globe in consequence of the evacuation of the humors; but I believe that Mr. Hancock is right in his assertion that this explanation is insufficient, inasmuch as simple paracentesis oculi has never afforded an equal amount of benefit, and in several of the cases reported by this surgeon no fluid whatever has escaped from the eye. I do not propose, however, to discuss at present the theory of this and other operations recommended of late for the relief of glaucoma, but would refer the reader to the original papers of Graefe, and Mr. Hancock, and to the able article by my friend, Dr. Noyes, in the number of this journal for February 2d.

### Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

MARCH 11th.—*Rupture of the left Fallopian Tube, and copious Effusion of Blood into the Peritoneal Cavity, in a Woman who was not Pregnant.* Dr. JACKSON showed the specimen, which he had received from Dr. Lincoln R. Stone, of Salem, with the following history of the case. The patient was a married woman, 19 years of age, of bad reputation, and living apart from her husband; she had one child a year and a half old. On the morning of February 20th, "she got up as usual, perfectly well, and dressed her child; went out of doors a few minutes, came back, and threw herself on the bed, complaining of pain in the abdomen, coldness and thirst. At 11 o'clock, Dr. — found her with feeble pulse, pallor, coldness of extremities and thirst. He prescribed stimulants and warmth; asked if there was any loss of blood, and the mother said, none." Patient died the same day, between 4 and 5, P.M., was buried on the 22d, and on the 2d of March was disinterred, by order of the coroner, and examined by Dr. S.

The body was nearly frozen, and well preserved; abdomen full. On opening the peritoneal cavity, it was found to contain, by estimate, about two quarts of blood, partly liquid, but in the pelvis coagulated. The uterus was not enlarged; but, as well as the vagina, was absolutely bloodless. The Fallopian tubes were more injected than the uterus, but neither of them was distended or discolored. The left tube, in its upper and posterior part, midway, showed an opening through its entire thickness, about a quarter of an inch in length; and, from this opening, there hung a coagulum about as large as a bean, from which the serum and coloring matter seemed to have been partially squeezed out. Nothing like an ovum was anywhere found. The tube having been cut open to but a small extent, Dr. Jackson found that he could inflate it from the fimbriated extremity, and pass a probe in from the uterus to near the seat of rupture, the result being that nothing was observed more than would be seen in the unimpregnated

condition. In the left ovary is a large spurious corpus luteum, and a smaller one in the right; but otherwise nothing remarkable. Dr. S. found a glairy, mucous secretion in the cavity of the uterus, and quite a profuse leucorrhœal discharge in the vagina. The organs of the thorax and abdomen were examined, but presented, generally, no unusual appearance. The catamenia was always regular; and the sister, who slept with the patient, reports that she was not menstruating at the time of her death, but was daily expecting to.

MARCH 11th.—*Retro-Uterine Hæmatocele*. Dr. GAY reported the following case, which he considered of interest, in connection with the one reported by Dr. JACKSON.

Mrs. —, æt. 21, reports that she has not had her usual health since her marriage, three years ago. From that time she has suffered much from leucorrhœa, and a frequent aching sensation in the region of the small of the back, hips, groins and along the thighs; these symptoms have been greater during the last summer and autumn, with occasional loss of appetite and strength. The catamenial periods have always been attended with much pain and profuse flow, continuing, generally, from ten days to two weeks, and with an evident increase since her marriage. The periods have been generally regular as regards their recurrence. Fourteen months after marriage, she had a miscarriage at the fifth month of pregnancy, and last July she had another, at the third month, after hard work, fatigue and a long walk. Since that time, she has not been as well, and has experienced a loss of strength and flesh, dizziness, nausea, more profuse catamenial discharges, attended with severe pain, and followed by leucorrhœa.

Four weeks ago, the menses appeared with the usual profuse flow, and suddenly stopped on the second day, after her taking cold from wet feet and wearing damp under-clothing. She was immediately seized with intense bearing-down pains in the left hypogastric region, and great soreness, both internally and externally. The pain and soreness increased steadily. She could not walk about nor stand up straight, but was obliged to lie down on the bed or lounge, and almost always on the right side. From the regularity of the pains, and their bearing-down character, she supposed she was in the family-way. In the interval of these pains, she had a throbbing, heating sensation, but, at no time, any rigors. After many days' suffering she sent for her physician, who gave all the relief he could, by anodyne and local remedies. The pains continued to increase, so much so, that she said she "was in misery all the time from them," coming on regularly for five or six hours and each lasting three or four minutes, always sharp and bearing-down, with a feeling of weight in the vagina and rectum. The bowels were generally costive, and were relieved by internal medicines and enemata. At times, though not constantly, the pain was intense during a dejection. There was much and frequent difficulty in the passage of urine, requiring, now and then, the introduction of a catheter.

The lower abdominal pains of the left side continued about the same and constant, but were not as severe as those which came on in the vaginal and rectal regions, which increased daily. At the first vaginal examination by the physician, a painful swelling was felt, near the region of the uterus and extending backward towards the sacrum. By the rectum, the swelling was easily felt, hard and tender on pressure, and more extensive than by the vagina.



When I saw her, she appeared like one who had been reduced by a long sickness. She had lost much flesh, her countenance was distressed, and her pulse was rapid and feeble. By her report there were only very short intervals of ease from pain. The chief points of suffering were in the left iliac region and rectum. On examination, a general fulness of the abdomen below the umbilicus was seen, without any special prominence on either side. By deep pressure on the left side, however, a distinct, pretty firm swelling was felt, somewhat tender, and extending slightly over the median line to the right side. But most of the swelling was in the region of the ovary. On passing the finger into the vagina, it soon came upon a swelling, the size of a small orange, pretty hard, tender to the touch, and mostly to the left of the median line. By little exertion and time, the finger was passed over and beyond the swelling, till it reached the os and cervix uteri, which were found pushed up and forward towards the symphysis pubis. Greater difficulty was found in the rectal examination. The sphincter was strongly contracted, and there were commencing hæmorrhoids. The swelling was much lower down than in the vagina, larger, more tender on pressure, and with much thinner walls.

As well as could be ascertained, by a finger in the rectum and vagina, the swelling was between their separated surfaces, and extending upward behind the uterus, elastic and fluctuating; and, from the thinness of the rectal wall, there would soon be a perforation in that region.

From the history and symptoms of the case, it was considered to be a *retro-uterine hæmatocele*, and I advised an opening in the vaginal portion of the swelling. After making the swelling tense by pressure from the rectum, an incision, an inch long, was made in the deep portion of the vagina. There immediately flowed out large quantities of dirty, old, liquid and coagulated blood, then three or four ounces of a fluid clear as water. On introducing the finger, the interior of the sac was rough, feeling like the interior of the heart as much as anything. A piece of rag was then inserted in the opening to prevent any union. Great relief was experienced soon after the operation. For three days the discharge was mostly blood and water; after which, it was a foetid, dirty, purulent liquid, which gradually lessened in quantity and foetor. The greatest amount of discharge in a day was about half a pint, from that to a wineglass and tablespoonful. Two weeks from the operation, and six weeks from the attack, her catamenia appeared, lasting only two days, not profuse nor painful.

She is now, three weeks from the operation, up and walking about her chamber, growing stronger daily, having a good appetite, no soreness nor pain at any point, and with scarcely any vaginal discharge. The swelling has entirely subsided. She reports that there were many foetid, "grayish, whitish pieces of flesh came from her, looking like *torn rags*."

FEB. 25th.—*Very peculiar Condition of the Bladder, with Fibrous Tumors of the Uterus.* Dr. JACKSON showed the specimen, which he had received from Dr. C. H. WALKER, of Chelsea.

The patient was a robust, athletic and unmarried woman, 45 years of age, weighing one hundred and sixty-five pounds four weeks before her death. Had never borne a child. About five years ago, she was examined at the Massachusetts General Hospital for a pelvic tu-

mor, which was regarded as an encysted ovary, the disease being of a few months standing. For three or four years she had had occasionally, on taking cold, slight pain on passing urine, but no further symptoms until two weeks before death, when, after a retention for twenty-four or thirty-six hours, the catheter was passed with much difficulty, and about half a pint of quite healthy urine was drawn off; the patient being then up and about. The os uteri was quite high up and not felt; nor was any tumor felt, except the distended bladder. From that time, and so long as she lived, her distress was very great, notwithstanding large doses of opium; urine passed only with great pain and straining, and in the lithotomy position; the distress being very great, even during the intervals of urination, so as to keep her awake. Urine very strongly ammoniacal the last three days; but never any mucus, pus or blood with it.

On dissection, the bladder was found to contain more than four quarts of dark-brown urine; and it occupied the lower half of the abdomen to a line about two inches above the umbilicus, pushing the peritoneum before it. Odor of the urine intensely ammoniacal. The parietes of the organ are dense, but not thickened; inner surface a little roughened, but without any trace of lymph or other inflammatory product, and without any trace of the muscular fasciculi; the most striking anatomical feature being, perhaps, a pretty uniform, brownish and greenish discoloration, such as is occasionally seen upon the inner surface of the stomach or intestines. Ureters not enlarged.

In the substance of the fundus and body of the uterus, and on the left side, is a defined, fibrous tumor, equal to about four or five inches in diameter; and in the left side of the neck is a second, of an oval form, about a third as large; the uterus being apparently pushed towards the right side. The smallest of these tumors is quite dense, but the larger one looks as if it may have been of comparatively recent formation.

Dr. J. remarked that the smaller uterine tumor might very well account for the dysuria that had existed for three or four years. As to the bladder, the appearance is quite different from anything he has ever before seen. The diagnosis of a fluctuating tumor and the connection between the bladder and the anterior parietes of the abdomen, would tend to show that the disease was of long standing; but, if such were the case, its latency was a very remarkable fact.

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## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

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BOSTON: THURSDAY, APRIL 18, 1861.

THE AMERICAN MEDICAL ASSOCIATION.—The Fourteenth Annual Meeting of the American Medical Association has already been announced to take place in Chicago, on the first Tuesday of June next. A question which very naturally excites some interest in the minds of the profession, is with regard to the effect of the present national crisis upon this organization. Thus far the Association has represented the profession in every portion of the United States, and it has rarely happened that every State has not had its representatives. Events



have occurred since the last annual session which practically and probably forever have severed the ties by which our confederacy was held together, and we now behold at least two political organizations, where before but one existed. However much such a rupture may be regretted, the fact cannot be denied, and all the consequences naturally and necessarily attendant upon it may be expected to follow. Not the least important of these is the effect upon all national organizations of whatever character, and for whatever objects instituted. The American Medical Association, although a voluntary one, is essentially national, and its influence has depended mainly upon the fact that it represented the medical profession throughout the length and breadth of a vast and growing country, constituting a medical congress whose acts, although not necessarily binding, were regarded with respect. It is true the more remote States were feebly represented, but we suspect that there are few medical schools in the land that have not felt at least the indirect influence of this body. It remains to be seen how far the political feeling which we fear will soon be raised to the highest pitch, or to what extent the curtailment in the size and importance of this Association, will operate in checking a development which could not have failed to elevate the character of the profession in this country. We sincerely trust that no political bias will be allowed to interfere with an institution whose interests are one with the profession and with humanity, and that there will be no abatement in that zeal among its members which has hitherto characterized their doings. And we hope for the sake of science, which is not legitimately confined within the limits of any nationality, that our brethren from both the North and South will, for the time at least, lay aside all political animosity, and meet as friends in that broad arena where the only rivalry should be in the exertion to advance those interests the successful promotion of which will confer a lasting benefit on a diseased and fallen race.

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BROMIDE OF POTASSIUM AS AN APHRODISIAC.—In a discussion on Puerperal Insanity by the Philadelphia County Medical Society, reported in the *North Carolina Medical Journal* for March, Dr. Darrach thus speaks of the use of bromide of potassium :—

“In regard to the bromide of potassium, Dr. D. remarked that his attention had been called to this agent by Dr. James Durrach, who had successfully used it in a similar case, and who refers the primary use of the article in genital complaints to Trousseau.

“Regarding bromide of potassium as a specific tonic to both the male and female organs of generation, Dr. D. has for some time, and in many cases, administered it successfully in too partial and too abundant menstruation, in leucorrhœa, and in various degrees of the indirect debility above noticed of the male organs of reproduction.”

He adds, that “As regards the use of phosphoric diet, its efficiency is not only supported by many cases in his own practice, but by the successful use of the dry phosphoric acid in the practice of his friend, Dr. Frické, and by the testimony of Dr. —, that a husband and wife, who were without issue for several years, eat daily of the head of the boiled rock fish, in accordance with medical advice, and conception, full gestation and a safe birth followed, and in due time occurred a second birth. How far the bromide of potassium may be an important adjuvant, is left for future practice to determine. The for-

mula which he has always used is : R. Bromid. potass.,  $\mathfrak{Sij}$ . ; aq. cinnam.,  $\mathfrak{f\mathfrak{z}ij}$ . M.  $\mathfrak{Zi}$ . q. t. h. Taken on an empty stomach, an hour before ordinary meal-time, and at bed-time."

TANNIN AN ANTIDOTE AGAINST STRYCHNINE.—As antidotes to strychnine are very rare, it is with the greatest satisfaction that we receive any that are offered us, particularly when they are given as the result of numerous experiments. We extract from the *Journal de Pharmacie et de Chimie* the following note :

"As the result of his experiments on rabbits and dogs, Dr. Kensak draws the conclusion that tannin, promptly administered, is the best antidote against poisoning by strychnine. The quantity of tannin should be in proportion to that of the poison ; the doses should be, in fact, rather large, as the contents of the stomach may absorb a part of the medicine. The tannin is preferred, on account of the readiness with which it may be procured, as it exists in the nutgall, which should be given in powder with water, while an infusion or decoction is being prepared. For each grain of strychnine it is well to give at least one hundred and fifty grains of nutgall. Many other substances containing tannin might also be given in case of necessity. Vegetable acids and alcoholic substances should be avoided. We must take care, also, to prevent any sudden movement, as the symptoms are thereby increased.

"Nutgalls contain, according to Sir H. Davy, 26 parts in 100 of tannin ; according to Pelouze, 40 parts ; so that if we administer the pure tannin, the dose would be from thirty-nine to sixty grains for each grain of strychnine. But as tannin is a comparatively innocuous substance, we need not be over-accurate, so long as we give enough of it."

METHOD OF HASTENING LABOR.—For nine years, says Dr. Ledentu, of Cherbourg, I have accelerated labor in most of the women whom I have attended in confinement, without any of the accidents attributed to the use of ergot, by introducing into the uterine cavity, after the waters have escaped, the feathered end of a quill, smeared with any fatty substance, and allowing it to remain until the infant passes into the vagina.—*Journal de Médecine de Bordeaux* from the *Abeille Méd. et Revue Thérapeutique*, March 1st.

ITCH TREATED WITH PHOSPHORATED OIL.—This treatment is not so new as it is said to be by Dr. Metzel ; it has been already recommended by Dr. Hinrich, and furthermore it is not very expeditious. Nevertheless, the physician of Cracow prefers it to the usual remedies, as it is inexpensive, not soiling the clothing, nor producing those consecutive eruptions which are so disagreeable. The phosphorated oil is prepared by placing eight grammes of phosphorus in five hundred of olive or linseed oil. The flask is closed by a piece of bladder and exposed to a temperature of 100 degrees in a water bath. Afterwards the cooled oil should be preserved in well-corked phials. It is used as an external application daily.

M. Metzel has subjected eighty patients to this treatment. The number of frictions necessary to effect a cure, was two in 4 cases, three in 31, four in 27, five in 10, six in 4. In all these cases the cure was complete. Three baths were also given to each of the patients before discharging them. There was not a single instance of return



of the disease, nor of consecutive eczema. On the contrary, the remedy hastened the cure of an eczema already existing in twenty-four patients, and excoriations in eleven others. It is important, to obtain these results, not to use the last portions of the oil contained in the bottles, as they may contain some particles of the phosphorus undissolved.—*Journal de Médecine de Bordeaux*, from the *Bulletin gen. de Thérapeutique*, and *Wiener Medizin. Wochensc.*

PHYSICIANS AND THE WEST. *Messrs. Editors*,—The enclosed is a stray leaf from a letter of Dr. Andrew McFarland, of the Illinois State Hospital for the Insane, written in reply to some interrogations of my own in regard to the inducements for New England physicians to go west. You are at liberty to make such use of it as your better judgment may dictate.

Respectfully,

H. C. SHAW.

Waitsfield, Vt., April 12th, 1861.

"It will still be a generation before a great multitude of the roads which physicians travel over here to find their patients are anything but unfenced paths over the prairies, or through forests where nothing but the sagacity of the horse carries the rider by night along in safety. As I only pass such roads in the day time, it is a mystery of mysteries how doctors safely pass them by night with unbroken necks, unless, like Jack in the song, they have some 'sweet little cherub that sits up aloft' to look out for them. Then the composition of the soil of which the roads have to be made in a prairie country, has never yet been described by any one, except briefly, by Mrs. Stowe, in one of the chapters of 'Uncle Tom.' A prairie, you know, is composed of earth so devoid of gritty particles as to be nearly impalpable. It makes capital dust, and O! *such mud*—well, comparison totally fails me. Reduced to a regular formula, *sec. art.*, it would stand something like this: **R.** Clay (best adhesive), lampblack, opt., wheel-grease, Spalding's liquid glue, aa *quant. suff.* (ocative). Liquify the above thoroughly, and lay it on deep just in proportion to the length of the last rain, and you have what we must take for a road about half of the year. It is a longitudinal slough, worse to traverse than Virgil's '*Styx novies interfusa*.'"

"There are some other things, which the already too great length of this hasty reply to yours forbids me to touch upon. If my picture is not a pleasing one, it is, nevertheless, the only one I can draw."

PERSULPHATE OF IRON AS AN INTERNAL HÆMOSTATIC.—A paper was recently read before the Society for Medical Improvement at the Long Island College Hospital, on the efficacy of the persulphate of iron as an internal remedy in passive hæmorrhage of the lungs, stomach or any other viscus. Three cases are given in illustration of its effects, one of hæmorrhage of the stomach, one of hæmoptysis, and one of hæmaturia, in all of which it proved most effectual. Dr. A. Hallet says, as reported in the *Medical Times*:—

"In administering the persulphate of iron, care should be taken to have it largely diluted, and not to give too much at a time, as from its astringent effect upon the mucous coat of the stomach, it is apt to be immediately ejected. I would also state that I have used it in profuse menstruation with a like happy result. I presume that it checks internal hæmorrhage by exerting its astringent principle upon the capillaries, and also in hæmaturia, by correcting the alkaline condition of the urine, which is said to excite bleeding by its irritating qualities. Inflammation should preclude its use, until it is overcome by appropriate remedies.

"In Dr. Hamilton's patient, who was operated upon in this Hospital four days ago for vesico-vaginal fistula, profuse hæmorrhage came

on yesterday, from the bladder, so much so that quite large clots were expelled through the urethra, and the patient began to sink from loss of blood. I understand from Dr. Lynch, that all other means having failed to arrest the hæmorrhage, recourse was had to the solution of the persulphate of iron internally, when the bleeding stopped. But whether 'post hoc, ergo propter hoc,' is true in this case, I am unable to say."

**MEDICAL COMMENCEMENTS.**—At the recent commencement of the New York University Medical College, held March 4th, the degree of M.D. was conferred on one hundred and twenty-nine graduates.

The eighteenth annual commencement of the Rush Medical College took place on Wednesday, Feb. 20th. The degree of M.D. was conferred on thirty-seven candidates.

At the commencement of the Medical Department of Lind University, at Chicago, twelve candidates received the degree of M.D.

The annual commencement and conferring of degrees of the Medical College of Ohio, took place in the College edifice Monday evening, March 4th. Twenty-three graduates received their degrees.

The Medical School connected with the University of Vermont, at Burlington, is making good progress; upwards of seventy students being in attendance at the lectures of the present term.

### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, APRIL 13th, 1861.

#### DEATHS.

	Males.	Females.	Total.
Deaths during the week, . . . . .	29	41	70
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	36.5	36.0	72.5
Average corrected to increased population, . . . . .	..	..	80.9
Deaths of persons above 90, . . . . .	..	..	..

#### Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
14	2	2	1	0	0	0	1	1

#### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	30.234	Highest point of Thermometer, . . . . .	52°
Highest point of Barometer, . . . . .	30.398	Lowest point of Thermometer, . . . . .	26°
Lowest point of Barometer, . . . . .	30.050	General direction of Wind, . . . . .	N., S. & E.
Mean Temperature, . . . . .	42° 8	Am't of Rain (in inches) melted snow . . . . .	00

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 585.

	BAROMETER.				THERMOMETER.				SNOW & RAIN.		Mean Amount of Cloud. 0 to 10.
	7 A.M.	2 P.M.	9 P.M.	Mean	7 A.M.	2 P.M.	9 P.M.	Mean	Time same.	Mean.	
Monday, April 1,	29.44	29.60	29.63	29.37	36	45	40	49.4	17 hours, 0 minutes.	1.12	-
Tuesday, " 2,	29.66	29.63	29.60		35	59	50				
Wednesday, " 3,	29.56	29.54	29.52		44	59	54				
Thursday, " 4,	29.41	29.36	29.43		48	55	52				
Friday, " 5,	29.30	29.28	29.26		47	58	54				
Saturday, " 6,	29.14	29.97	29.7		50	54	48				
Sunday, " 7,	29.19	29.16	29.6		47	53	50				

REMARKS.—General direction of the wind, E. S. E. Prevailing diseases—Influenza, irritation of the respiratory organs and urinary system, augmented in this community by the injudicious use of *chlorate of potash*.

**DEATHS IN BOSTON** for the week ending Saturday noon, April 13th, 70. Males, 29—Females, 41.—Accident, 1—bronchitis, 4—inflammation of the brain, 1—consumption, 14—convulsions, 4—croup, 2—diphtheria, 1—dropsy, 1—dropsy of the brain, 6—empyema, 1—scarlet fever, 2—typhoid fever, 1—hæmorrhage, 1—disease of the heart, 4—intemperance, 1—disease of the kidneys, 1—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 1—marasmus, 1—mortification, 1—old age, 2—psoriasis, 1—paralysis, 1—pleurisy, 2—peritonitis, 1—puerperal disease, 3—inflammation of the portal vein, 1—sore throat, 2—teething, 1—tumor (ovarian), 1—unknown, 5—whooping cough, 1.

Under 5 years of age, 25—between 5 and 20 years, 12—between 20 and 40 years, 18—between 40 and 60 years, 7—above 60 years, 8. Born in the United States, 45—Ireland, 19—other places, 3.



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TWO CASES OF OBSTRUCTED VAGINA.

BY SAMUEL L. ABBOT, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

SEVERAL years since, I was called upon, by an unknown lady, somewhere between 20 and 30 years of age, who said she wished to consult me about a peculiar difficulty, and to know whether it admitted of a remedy. After some hesitation, she said she thought she must be different from other women. She had been married but a few months, and her experience during that time had been one of so much suffering that she had at last made up her mind to consult a physician. She accordingly applied at the Massachusetts General Hospital, having it under consideration to enter that Institution as a boarder, if it were deemed expedient.

It being evident that there must be something abnormal about the sexual system, an examination was asked and somewhat reluctantly permitted. Everything about the external organs was natural, but on introducing the finger within the vagina and passing it towards the uterus, its progress was suddenly arrested, towards the upper part, by a transverse diaphragm or partition. This was extended across from one side to the other, and had nothing of the character of a contraction or an adhesion of the opposite walls. In its centre was a circular opening, so far as could be judged by the touch, which readily admitted the tip of the forefinger, and without much difficulty that of the ring-finger also. Above this diaphragm, say from three quarters of an inch to an inch, the os uteri was felt, apparently in a normal condition, surrounded by the *cul de sac* of the vagina, of its usual dimensions. The membranous partition had a very firm, inelastic feel, and, as far as could be judged by the finger, was at least an eighth of an inch in thickness. It was very rigid. Considerable force was used by separating the tips of the fingers, to determine if it was in any degree distensible or could be lacerated. No impression was produced upon it, and the effort caused considerable pain. Here was a serious obstacle to sexual intercourse, and the patient stated.

that every act was attended by intense suffering, the whole of the neighboring parts being dragged upon and forced upwards in the most painful manner. It was evident that such an obstacle would be somewhat serious, should the lady become pregnant, at the time of labor; as its very unyielding character would probably require surgical interference to remove it, and a sudden rupture might lead to an injury of the vagina; it was altogether too firm to be trusted to the laceration which an advancing head might produce.

The patient was accordingly advised to submit herself to treatment for the removal of the obstacle at once. She left, promising to consult with her husband on the subject, and never returned. Perhaps her case may have fallen subsequently under the eye of some other physician, and it would be interesting to know what was the final issue of it. It should be added that the patient was not aware of having at any time sustained a local injury which could account for the existing state of things, nor was she, previous to her marriage, conscious of its existence. In fact, the character of the partition was not that of an inflammatory adhesion, or the result of any mechanical injury.

CASE II.—*Imperforate Hymen at the time of Labor.*—Mrs. —, in labor with her first child. On making the first examination, not suspecting anything abnormal, a little embarrassment was momentarily felt in tracing the topography of the parts. The finger did not readily enter the vagina, but passed beyond it in an awkward way, suggestive of unprofessional bungling, not at all flattering to one's *amour propre*. A little more care, however, on a second essay, led to the discovery of an unruptured hymen. There was a small central opening in this membrane, which admitted the tip of the forefinger, and taking advantage of the presence of a pain, it was gradually worked through by a little pressure, without much opposition from the patient, until the uterus was reached, and the presentation made out. The patient was at once assured that there was no serious obstacle to the birth of the child, and that all things would issue well. This gave her great relief, as she said the apprehension of serious consequences had been a heavy burden on her mind for a long time, as she knew there was something wrong about her, but delicacy had prevented her speaking about it. As the hymen was not very firm, it was allowed to wait for the advancing head to come down upon it. As labor progressed, and the vagina became more and more relaxed, the orifice in the membrane was observed to be gradually dilating, until it was about an inch across, and the membrane itself had become proportionately thin. At last, as the head pressed upon it, the stretched edge was felt to give way under the finger by gradual rents at different points, like a piece of wet paper, without the consciousness of the patient, and the obstacle was removed. On subsequent inquiry of the husband, it was learned that the barrier had been a sufficiently embarrassing one, preventing entirely



complete coitus, but, as events proved, not enough to prevent impregnation; one of those facts, by the way, which overturn entirely the theories of those who argue that fruitful congress can only occur by the apposition of the orifice of the urethra to the os uteri at the moment of sexual orgasm, in which it is contended that the female must also of necessity participate. Such cases show conclusively that it is not necessary to suppose any *power of suction* in the uterus at that moment to introduce the spermatozoa within its cavity, and that their power of rapid movement is not altogether a superfluous endowment. The patient has had a second child since, and it was found at the time of labor that the occlusion had not been reproduced.

A.

TABULAR STATEMENT OF DEATHS ATTRIBUTED TO THE EFFECTS  
OF INHALED CHLOROFORM.

BY C. T. JACKSON, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

CHLOROFORM was discovered in 1831 by Dr. Soubeiran, and by Liebig and Dumas in 1832. It was first proposed as a substitute for ether, by Mr. Waldie, at the request of Dr. Simpson, of Edinburgh, in the month of December, 1847. Meanwhile etherization had been adopted by all civilized nations, from Europe to China, and was most extensively employed in surgery, and with great success.

Chloroform superseded ether, chiefly in some of the larger cities of Europe, and had not been used long before the world was alarmed by reports of numerous cases of deaths resulting from the inhalation of this powerful agent.

In 1850, Dr. E. F. Bouisson, of Montpellier, published the following table of deaths produced by inhalation of chloroform, showing the dangerous character of that "substitute for ether." These tables are sufficiently full to make the matter quite clear, and further comment is unnecessary.

We add, also, a table of the deaths following the employment of this anæsthetic agent in this country. It is not probable that it represents half the actual number that have occurred, our means of collecting such statistics being so imperfect in this country.

Since our committee, now having in charge the collecting of the statistics of etherization, to ascertain whether or no there have been any cases of death from the effects of ether, is still engaged in its labors, I shall abstain for the present from any remarks on that subject, and await the presentation of the report to the Boston Society for Medical Improvement. In the mean while, I shall continue my physiological and chemical investigations on the effects of ether on the human organism.

TABLE of Deaths attributed to the influence of Chloroform. Translated from "*Traité de la Méthode Anæsthétique*," of E. F. BOUSSON, Paris, 1850 (p. 397-8), by C. T. JACKSON, M.D.

	Facts, Name of Surgeon, &c.	Name and Condition of Patient.	Duration of Chloroformization and nature of Operation.	Epoch and Character of Death.
1	M. Meggison, 1848.	Hannah Greener, age 15 yrs., great dread of inhalation of Chloroform.	Chloroform inhaled fr. handkerchief. Insensibility in half a minute, removal of a nail begun.	Immediate death in spite of all remedies given.
2	M. Pearson, 1848.	Mrs. Simmond, age 35 years, good health, tho' nervous; copious repast.	Chloroformization for some instants, after wh. some roots of teeth were extracted.	Death two minutes after commencement of inhalation.
3	A surgeon of Hyderabad, 1848.	A young woman having a lesion of left medius.	Inhalation of one drch. Chloroform from a handkerchief. Commenced amputation of the finger.	Immediate death.
4	Robinson, Dentist, 1848.	Walter Badger, age 23 years, had disease of heart and hypertrophia of liver.	Chloroformization from apparatus one minute. Operator absent $\frac{1}{4}$ min. to get bottle of chlorof.	Died during absence of the operator, who attempted in vain, by various remedies, to resuscitate the patient.
5	M. Gorré, of Bologne sur Mer, 1848.	Mad'me Stock, age 30 years, having been subject to palpitation and chlorosis. Abscess following superficial wound on thigh.	Inhalation of Chloroform less than one min. This time sufficed to produce grave symptoms, during which the purulent sac of the thigh was opened.	Immediate death.
6	M. Robert, 1848.	Daniel Schlyg, age 24 years. Thigh broken by a ball in the days of June; profound depression, physical and moral.	Inhalation of Chloroform during 3 or 4 min. Disarticulation coxo-femoral; new inhalation of Chloroform.	Death during the operation.
7	M. Malgaigne, 1848.	Wounded in June, having the neck of the humerus broken by a ball; weakened by hæmorrhage, gangr. of wound.	Chloroformization; disarticulation scapulo-humeral; new inhalation while searching for the ball.	Death during last incisions.
8	Hotel Dieu of Lyon, 1848.	Charles Desnoyers, 22 years of age. Scrofulous, had white swellings of left hand.	Chloroformization with apparatus during five m. Cauterization of joint.	Death on commencement of operation.
9	Roux, in the Hotel Dieu of Paris, 1848.	Woman with scirrhus breast.	Chloroformization; amputation of the breast.	Death before leaving the operating room.
10	Reported by M. J. Guérin, Bicêtre, Sept. 1848.	Man with lesion of thigh.	Chloroformization; disarticulation coxo-femoral.	Death before end of operation.
11	M. Gordon Buck, New York, 1848.	Man weakened, having lesion of the heart, as proved by autopsy.	Chloroformization; excision of hæmorrhoids.	Sudden death just as operation was about to commence.
12	Case of Govan, London Lancet, 1849.	Young person.	Chloroformization; removal of in-grown nail.	Immediate death.
13	M. Barrier, Lyon, 1849.	A glazier, 17 yrs. of age, scrofulous.	Inhalation of 6 to 8 grammes of Chloroform for six minutes, for amputation of a finger.	Convulsions, followed by death in half a minute.
14	Case in Hospital of Madrid, 1849.	Child 12 years of age.	Chloroform employed before amputation of leg.	Death during the operation, with violent tetanus.
15	M. Conferron or Langres, 1849.	Mad. Labrune, age 33 years, of nervous temperament.	Submitted a year before with success to inhalation of Ether. Submitted to Chloroform for extraction of a tooth.	Death as from a thunder-bolt—"mort foudroyante."



*A few cases of Death which took place during or immediately after the inhalation of Chloroform, in the United States. Compiled by CHARLES T. JACKSON, M.D., Boston, March, 1861.*

	Authority.	Name of Patient.	Nature of Anæsthetic Agent and Operation.	Death, &c.
1	Coroner's Inquest. Dr. Charles H. Stedman, Med. Coroner. Autopsy by Dr. F. S. Ainsworth, Dr. C. H. Stedman and Dr. C. T. Jackson, Feb. 1855.	Phebe Ann Morgan, of Boston, a stout, healthy young woman. Case reported in Bost. Med. and Surg. Journal, by C. T. Jackson, M.D.	Chloroform inhaled preparatory to extraction of a tooth. Operation not performed.	Died in a few minutes before operation was begun. Stimulants and insufflation of lungs tried for resuscitation, without avail. Much chlorine and formic acid found in blood of heart, by chemical analysis.
2	Dr. Severence, Dentist, Salmon Falls, N. H.	Miss Packard, a healthy girl from Maine.	Chloroform inhaled preparatory to extraction of a tooth—the inhalation conducted by herself during the temporary absence of the dentist, and without his knowledge.	Found dead on return of the dentist, after a few minutes absence from the room.
3	Pawtucket Gazette.	Young girl, daughter of James C. Aldrich, of Pawtucket.	Chloroform inhaled by smelling of chloroform liniment, much of which was spilled in the bed near her face.	Died in half an hour. Stimulants tried for the purpose of reviving her, without avail.
4	Boston Traveller of April 8th, 1854.	Henry N. Dean, aged 21.	Chloroform inhaled for pleasure. Had often taken it for this purpose.	Died suddenly, in evening after the inhalation.
5	Boston Papers, June 4th, 1858.	Ebenezer B. Jones, a young man in good health.	Took an ounce and a half of Chloroform in water, as a remedy for seasickness while on a fishing party in the bay of Boston.	Complete stupor, followed by violent convulsions and death in an hour; remedies found of no avail.
6	Dr. Alden March, of Albany, N. Y. Trans. State Med. Soc. of N. Y., 1855, p. 159.	Miss Sarah Weaver, of Schoharie, N. Y., aged 18 years; in feeble state of health, from long disease. Operation done at the Albany N. Y. Hosp.	Large tumor in neck, involving carotid artery and jugular vein. Ether given first, then chloroform, and a very grave surgical operation was performed on her.	Sunk and died in two hours. Consulting surgeons attribute the death to loss of blood and nervous exhaustion. Probably chloroform hastened the death.
7	Dr. Davis, dentist, of Lynn, Ms.	Mary Farley, an adult married woman.	Chloroform and ether inhaled preparatory to extraction of a tooth.	Died in seven or eight minutes. Galvanism and other means employed to revive her, without effect.
8	Man in U. S. Marine Hospital, Chelsea. Dr. W. Ingalls.	Name not known to me.	Alcoholic solution of Chloroform, sometimes called strong chloric ether.	Sudden death before operation.
9	Man in Mass. General Hospital, Boston. Dr. J. C. Warren.	Name not now remembered by me.	Chloroform given by mistake for alcoholic solution of chloroform, inhaled from a sponge, preparatory to operation.	Immediate death in spite of free use of ammonia and other stimulants.

No. 6 is the only doubtful case in this collection. However, it is probable that the tendency to collapse and fatal result was partly due to the action of chloroform. Still, from its nature, the case might have terminated fatally, even if chloroform had not been administered.

C. T. JACKSON.

MEMOIR UPON CERTAIN POINTS IN THE ANATOMY AND PHYSIOLOGY OF THE MUCOUS MEMBRANE AND THE EPITHELIUM OF THE UTERUS DURING PREGNANCY.

By DR. CHARLES ROBIN,

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[Translated for the Boston Medical and Surgical Journal, by WILLIAM READ, M.D.]

THE investigations which are the subject of this work, have been made comparatively upon the human uterus, and those of divers of the domestic mammalia. I shall divide them into two portions, to facilitate the exposition of the subject; each of these will be subdivided, according to the nature of the particular points which I have to describe. In the *first part*, I shall treat particularly of the mode of connection, anatomical and physiological, of the placenta with the mucous membrane of the uterus, as well as of the structure of the latter, considered as a respiratory and nutritive organ for the foetus.

In the *second part*, I shall describe the changes undergone by the epithelial coats of the uterus during pregnancy.

PART FIRST.

OF THE MODE OF CONNECTION BETWEEN THE PLACENTA AND THE MUCOUS MEMBRANE OF THE UTERUS.

§ 1.—*Observations on the inter-utero-placental decidua.*—All authors are agreed in asserting that the inter-utero-placental decidua (*decidua serotina*, *membrane intermédiaire ou utero-epichoriale*, *placenta maternel*) is absorbed by the placenta, as the rest of the decidua is by the chorion. This fact is not, however, exactly true; and, to be comprehended, demands certain anatomical and physiological details.

We say, generally, that the villousities of the placenta (those of the lobes or cotyledons of the placenta) project into the sinuses of the decidua serotina, and are there immersed, and as it were floating; or that they are actually floating in the sanguineous lacunes (*lacs sanguins*) which represent these sinuses; that the blood is immediately in contact with the villousities of the chorion; that these villousities of the chorion, cotyledonal or placental, plunge into the decidua serotina, or into the sinuses in the same manner as the roots of a plant placed in the ground. This fact, nevertheless, is no more exact. The inter-utero-placental decidua is that portion of the uterine mucous membrane, at the surface of which, the villousities of the chorion become hypertrophied, to form the placenta. It separates the placenta from the muscular coat of the uterus.

In consequence of its situation, it is differently organized from the rest of the mucous membrane which becomes deciduous; this is so, under certain relations at least, and its life, and the manner of its behavior, are not identical. These differences of its organization depend upon its vascularity. The rest of the mucous mem-



brane of the uterus becomes *deciduous*, because its vascularity diminishes, and because, little by little, a new, thin, mucous membrane interposes itself under that which becomes deciduous; but, while this is taking place, we observe the portion of the mucous membrane which is *inter-utero-placental* become very vascular. Whilst the *uterine decidua* and the *decidua reflexa* are grayish, soft, thin, easy to tear, and to cut likewise; the *utero-epichorial* membrane is remarkable for its large sinuses nearly full of blood in the living, or full of bloody clots in the dead body. These veins, whose size has given them the name of sanguineous lacunes (*lacs sanguins*), are directly continuous with the venous sinuses of the muscular coat, which are left very much larger just here than in the rest of the contractile parietes of the uterus. There results from the cut or dissected decidua serotina (inter-utero-placental decidua), a cavernous or erectile, areolar appearance, altogether peculiar. By cutting the large anastomosing canals in every direction in which they run, one is gradually led into the very substance of the muscular walls, traversed throughout by analogous sinuses; they are like them, with very thin walls, intimately adherent to the proper or muscular tissue of the uterus, and smooth on their internal surface. These sinuses terminate more or less abruptly at the circumference of the placenta, and that in a very plain manner, when, at the periphery of the latter, there exists among the membranes the *circular sinus* of the placenta with which they communicate. We know that this sinus is nothing else than one or more of these veins at the periphery of the inter-utero-placental decidua, varying generally in volume, according to the point at the circumference of the placenta which we examine. In making, in a uterus the placenta of which has not been detached, an incision involving the uterine decidua and the inter-utero-placental decidua, these two membranes present a very marked difference of aspect. The inter-utero-placental decidua appears like a very thick layer, pervaded by large vessels, which we do not see in the thinner decidua, properly so called.

This difference in thickness, it is true, is not very manifest, except in an injected piece, or in one where the sinuses are filled with clots of blood, which last condition is rarely observed. It is due, in reality, to the existence of the sinuses already pointed out, and particularly to their distension by blood.

If, in the uterus of a woman dying pregnant at the seventh or ninth month, like that which in making this description I have under inspection (seven months and a half), we detach the placenta, we are struck with the following facts.

The chorion involves the *decidua uterina* and the *decidua reflexa*, which adhere to it and to each other; it detaches them from the contractile walls of the uterus, leaving the internal face of the muscular coat clothed with a mucous membrane of replacement, which has already begun to be developed. It forms a thin coat,

soft, more or less rosy, moulding itself upon the muscular fibres, and permitting them sometimes to be plainly seen when it is torn, or at least by transmitted light. The free surface of this commencing mucous membrane appears somewhat irregularly villous, when we study it under water. But in women who have died seven or eight days after delivery, it has already taken on a smooth surface, although its thickness may be as yet little augmented, and it is somewhat shiny, as if glutinous, but too soft to be separated by dissection from the subjacent coat. We see, besides, that the placenta carries with it the circular sinus which runs round its circumference, and which is slightly exterior to it, rather than inter-uteroplacental, properly speaking. It carries with it, at the same time, the half, almost, of the substance of the *serotine*, or inter-uteroplacental decidua, because it tears nearly through the middle of the sinuses which pervade this last everywhere; and yet it retains in this thin portion of inter-uteroplacental decidua some portions of the sinuses still entire, particularly in the neighborhood of the circular sinus, and in the furrows or depressions which separate the uterine cotyledons. The placenta, also, when it separates from the uterus, does not carry away the inter-uteroplacental decidua entire, as it does the rest of the uterine decidua. On the contrary, it leaves the greater part of it adherent to the uterus.

Here, then, are presented two subjects for investigation, and an observation full of interest:—1st, We have, on the one hand, the placenta with the chorion, which draws with it the uterine decidua and the decidua reflexa; but these membranes not offering anything to notice particularly, I shall not dwell on them any longer. 2d, On the other hand, we have the uterus, which, on the contrary, retains the entire vascular portion of the inter-uteroplacental decidua, or at least two thirds of its thickness. I shall come back to that by and by; let us first look at the placenta.

§ 2.—*Of the adhering surface of the placenta after it has been detached from the uterus.*

The uterine face of the placenta exhibits embossments or projections of the cotyledons, separated by furrows more or less deep. But I am surprised that it has not been more carefully remarked, in an artificial separation of this organ in a woman dead before delivery, as well as in the placenta thrown off naturally, that the surface of the cotyledons is covered by a greyish membrane, semitransparent, soft, and of a thickness of from a half to two millimetres ( $\frac{9}{1000}$  to  $\frac{10}{1000}$  of an inch) according to the subjects. This membrane is sometimes smooth and sometimes rough, and has an appearance altogether peculiar. It does not, any where throughout its substance, show vessels comparable with the circular sinus, which we frequently encounter at the periphery of the placenta, nor, as a matter of course, with the sinuses of the inter-uteroplacental decidua. I have already pointed out, elsewhere, the important fact that this greyish membrane, rather elastic, and a little



viscous or glutinous also, passes without any break from one cotyledon to another, only showing a greater thickness in their interstices between which it dips.\* This coat or membrane, detached from the inter-utero-placental decidua by the placenta to which it adheres, is represented by the thickened epithelium of this inter-utero-placental portion of the uterine mucous membrane, and by the most superficial portion of the inter-utero-placental decidua. And, besides, it is principally made up of epithelial cells, which have undergone considerable hypertrophy in their bodies and their nuclei, as well as distortions, often the most bizarre, modifications which I have elsewhere pointed out,† and to which I shall recur in the second paragraph of the last part of this memoir. Moreover, it encloses in this amorphous substance different molecular granulations, &c. We can also make out that at the periphery of the placenta, as we approach the decidua, it goes to continue itself with that portion of the latter which adheres to the chorion, rather than with the face of the decidua which has just been detached from the uterus.

The existence of this membrane which is constant, except when accidentally torn, demonstrates a very important fact, namely, that the villusities of the placenta do not dip freely and directly into the large sanguineous sinuses of the inter-utero-placental decidua. The cotyledons are very prominent on the side of the inter-utero-placental decidua, which, in its turn, dips to the bottom, not very deep for that matter, of the furrows which separate the cotyledons; but at the same time their substance, the ramifications of their villusities, every where pervaded by the foetal blood, are separated from the blood, by this greyish membrane, whose thickness attains nearly two millimetres ( $\frac{80}{1000}$  of an inch), and by the very thin membrane of the sinuses of the inter-utero-placental decidua. It is through the thickness of this coat and through that of the walls of the subdivisions of the villusities and their capillaries that, molecule by molecule, the change is made of nutritive matter from the mother to the foetus and reciprocally. This transmission is far from being as direct as is thought, as any one can see; for the contact between the chorial or placental villusities is indirect—very indirect indeed.

The adhesion between the cotyledons is molecular, and very close, as we may see; since the placenta detaches the surface of the inter-utero-placental membrane, and carries that with it, rather than merely disengages itself from the latter; but it is no less true, that, from a physiological and an anatomical point of view also, the cotyledons, the placenta in a word, are simply applied to the surface opposite the great maternal vessels. They do not

\* Ch. Robin, *Recherches sur les modifications graduelles des villosités du chorion et du placenta.*—(C. R. et Mem. de la Soc. de Biologie, Paris, 1854, in 8, p. 75.)

† C. Robin, *Memoire pour servir à l'Histoire Anatomique et Pathologique de la membrane muqueuse utérine, de son mucus et des œufs, ou mieux glandes de Naboth, lu à la Société philomatique, le 18 Mars, 1848.*—(*Archives générales de Médecine*, 4e series, t. xviii. p. 201. Paris, in 8o.)

plunge in substance into the blood or into the tissue of the inter-utero-placental decidua, under the form of arborescent or radicular ramuscles, as all descriptions of them seem to point out, in which theory, the more easily to explain the endosmotic change, has certainly outrun observation.

§ 3.—*The connections between the Placenta and the Uterus, as seen in certain of the mammalia.*

I cannot refrain from making the remark, that the mediate and indirect connections of the placental villousities with the maternal vessels, constitute a fact that is not peculiar to the human species alone. It is not true, in reality, that the villousities of the cotyledons of the placenta or the chorion of mammals (such as ruminants, rodents, carnivora, solipedes, and fissipedes) dip, as we say, their terminal subdivisions in the tubular glands of the mucous membrane of the uterus, or in its dilated vessels.

In the rabbit, in particular, at the beginning of their evolution, the villousities penetrate between the folds of the uterine mucous membrane, which are full of vessels at this spot; but it is nothing else than an interlacing or entangling of these folds with the ramifications of the villousities, or at least with some of the ramuscular fibres. It is nothing, in the main, except a contiguity, on the one hand, of the ramifications, with the fold of a vascular mucous membrane on the other. This simple contiguity or application will become much more evident a little later, because it ends finally in being only very mediate.

In the same way, it is by an entanglement of the kind already pointed out, that the villousities of the cotyledons of the calf are connected by contiguity and adhesion with the uterine cotyledons of the cow; the latter are very vascular, but have no sinuses or sanguineous pouches, properly so called, for the arrangement of veins in the form of sinuses is seen nowhere except in the human female, or perhaps in those of the monkey tribe, whose uterus has a thick and firm mucous membrane, which is not intestiniform.

In reality, it is everywhere nothing but an application, face to face, as in the human female, of certain of the vascular portions of the foetus and the mother, an application varying in the arrangements of their descriptive anatomy, if we may be allowed so to speak, according to the arrangement of the uterine mucous membrane, and the presence or absence of maternal cotyledons; but there is no trace of this penetration into the glands, of which we have spoken.

There are no other *utero-placental* vessels than those which run amongst these folds or projections of the mucous membrane of the uterus, which dip between the chorial or placental villousities of the mammalia mentioned before, and between the shallow sulci which divide the cotyledons of the placenta in man.

[To be continued.]



## FOREIGN SUBSTANCE IN THE LARYNX.—TRACHEOTOMY.

BY G. W. CHITTENDEN, M.D., JANESVILLE, WIS.

[Communicated for the Boston Medical and Surgical Journal.]

On the 13th of January, 1861, I was hastily called, in company with my friend, Dr. J. S. Lane, to visit Miss E. Holmes, a young lady of 15 years, who had a pin lodged at the base of the larynx. Her residence was four miles in the country. We reached there about 4, P.M. Before the accident, Miss H. was preparing for church, had just washed her neck, and was quite merry at the time. She came to her mother, requesting her to look at her neck, throwing back her head for the purpose, and at the same time inflating her lungs. A pin, in her mouth at the time, fell back into the pharynx, and passed into the air-tube. She immediately exclaimed, "A pin, a pin!" accompanied with violent efforts at coughing, and strangulation, with some retching. For an hour, she was almost in convulsions. When we arrived, being two hours after the occurrence, we found her in a great state of agitation, unable to speak, fearing to move a muscle, face bloated and livid, eyes congested, respiration nervously hasty, and her efforts at deglutition causing great pain. Whilst retching and coughing, much bloody mucus was ejected.

An immediate examination of the larynx and trachea was instituted, resulting in determining the locale of the pin, which occupied a position nearly transverse between the thyroid and cricoid cartilages, the point of the pin being to the left; by pressing the part between the thumb and finger, the pricking was felt by the patient at the left side, and the pain produced by pressure at the point would cause serious spasmodic movements.

In half an hour we had the patient placed on the table in a semi-recumbent position, the head thrown back to render the trachea prominent, and, with the aid of Dr. J. S. Lane, administered chloroform, and proceeded to an operation for the removal of the pin. It was begun by an incision commencing at a point immediately below the cricoid cartilage, and extending down an inch and a quarter, dividing the integument and superficial fascia. We then separated the sterno-hyoid and sterno-thyroid muscles, exposing the isthmus of the thyroid gland, which we next divided, bringing in view the trachea. The hæmorrhage being profuse, there was a necessity of stopping at different stages of the operation to ligate arteries. Four ligatures were applied, and yet the constant and profuse oozing of blood required a prolonged use of ice to entirely control the hæmorrhage, preparatory to making an opening into the trachea. With the pointed bistoury I punctured the trachea between the third and fourth rings, and, inclining the handle of the instrument downward about 45 degrees, carried the incision up to the cricoid cartilage, dividing the three upper rings, the edge of the instrument coming in contact with

the pin at the upper point of incision. Considerable bloody mucus was forcibly blown out at the opening. Passing up the forceps, I succeeded in getting hold of the pin, and in the effort to extract it the instrument lost its hold. This was followed by considerable excitement, much mucus being forced out at the opening and also from the mouth, with retching and vomiting. After the agitation had subsided, the forceps was again introduced, and not readily finding the pin, I passed in a probe, and after carefully exploring without being able to find its locality, decided to let her come out from under the influence of the chloroform, that we might avail ourselves of her sensations to elicit further information of its new location. Her first expression, after recovering from the anæsthetic influence of the chloroform, was, "It's gone; I don't feel it prick." As she was able to converse freely and audibly, to swallow liquids and fluids without pain, all pain having ceased, and none resulting from pressing on the larynx and trachea, we concluded the pin must have escaped with the mucous discharge. It was found in a mass of mucus on the carpet, bearing on it the mark from the edge of the bistoury. It is very nearly one and three-eighths of an inch in length.

The wound was closed with two sutures, and adhesive plasters, and arnicated water dressings applied.

14th and 15th. Aside from the nausea resulting from the use of chloroform, she has been very comfortable. Some slight disposition to cough remained for a few days.

On the 22d, the sutures were removed, and in two weeks from the time of the operation, she came to the office to have the wound dressed. At this date she is perfectly recovered.

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#### CASE OF PROLAPSUS OF THE UMBILICAL CORD.

By E. A. W. HARLOW, M.D., BOSTON.

[Communicated for the Boston Medical and Surgical Journal.]

I WAS lately called, at 9 o'clock in the morning, to a young lady in labor with her second child. The membranes had given way about fifteen minutes before I arrived. On examination, there was found in the vagina a coiled mass of the funis of about the size of a hen's egg. The os uteri was dilated to the size of a dollar, and dilatable, and the head above the superior strait.

In accordance with the mode adopted by some accoucheurs, in such cases, the patient was directed to get upon her elbows and knees, with her body across the bed, and to continue so during the occurrence of a few pains. When in this position, I passed my hand into the vagina, and pushed back first one portion of the cord, and then another, and so on, till the whole mass was returned and held, at the side of the head, by the tips of my fingers. When the next pain came on, the cord was pressed forcibly upon the ends of the fingers, but



prevented by them from passing out of the uterus; and the same pressure occurred during a few successive contractions. Gradually I pushed the cord a little higher, till, during one of the pains, when the head advanced, the cord did not advance with it, and was not felt. The patient was kept in the same posture till a few more pains had passed, but there was no re-appearance of the cord. She was then permitted to lie on her back, but the pains did not bring down the cord. The abdomen was then ausculted, and the foetal tick of 140 a minute was distinctly heard. She was then allowed to leave the bed and pace the room, which she did without return of the prolapsus. All apprehension as to the result of the labor was now at an end. Every thing went on favorably, and at a quarter past two o'clock, in the afternoon, a living and vigorous child was born, weighing about ten pounds.

How far the position of the patient, favorable to the gravitation of the funis towards the fundus of the uterus, contributed to the successful result, I will not say. Perhaps any other posture would have answered as well. In that position, the first few contractions forced the cord against the tips of the fingers with as much power as if the patient were lying upon her back; so that position alone would not have sufficed. The head being above the brim was perhaps favorable; but there were needed the persistent efforts to keep the cord as far back as could properly be done.

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#### TRIAL FOR MURDER BY POISONING.

(Continued from page 184.)

*Charles T. Jackson.*—Reside in Boston. Have been in practice as a physician. Am a consulting and analytic chemist and State Assayer. Have given attention to strychnia, in Paris and here. Have experimented myself. In solution, 1 to 2 grains has produced death in fifteen minutes. The extent of time depends upon the dose. Over a grain may kill a man in two hours. There occur spasms and violent contortions, spine is curved, hollow of foot arched. The flexor muscles are most acted upon, limbs most powerfully drawn up; then intervals of rest; then they come on again suddenly; oftentimes brought on by noise, or by contact with anything. When a glass of water is offered, it sometimes brings on convulsions, so that the patient snaps at the glass. These terminate with abundant cold sweats. If death occurs in spasms, muscles remain rigid, and body appears as if frozen. When death occurs in interval, the muscles, at first flaccid, become very soon rigidly tense and remain so for months after death, and do not give way until putrefaction begins. I know of no well-established exception. The one reported in Palmer's trial is doubtful. The patient can drink, but with great difficulty—the symptoms in that respect resembling hydrophobia. I never have known of a case where

a person poisoned by strychnia called for rum. I know of nothing which would exclude it. The patient might call for rum. It is common in intoxication from alcoholic drinks. The jaws are perfectly fixed, firm and rigid during spasm and after death. I think the neck could not be bent without raising the whole body.

Have witnessed the effects of strychnia upon warm-blooded animals; produced the same symptoms as in man. Spasms are produced in frogs from a great variety of causes. There is no comparison between the effect upon them and upon man. All poisons that affect them, do not affect man. The method proposed by Marshall Hall is to immerse frogs in a strychnia bath. Introducing it into the stomach is not Hall's method. It is not so delicate as applying it to the surfaces. It would not alter the taste of strychnia to dissolve it in liquor. No substance will dissolve strychnia so as to destroy its taste. I can't conceive of any person taking sufficient to destroy life, in solution, without knowing it; the taste is very bitter and persistent. The stronger the solution, the more decided would be the taste.

I have had a very extensive experience in *post-mortem* examinations. It is very common to find slight redness of surface of stomach. It is not uncommon to find redness of skin. Strychnia produces no such effect. In most cases of sudden death, the blood remains fluid, lungs engorged; common in sudden death to find distension of vessels of brain. I think it impossible, in case of death from strychnia, that the left ventricle should be gorged with blood.

I have heard the testimony of Drs. Hubbard and Davis. I don't think the *post-mortem* examination was complete. A portion of the liquid contents of the stomach passes into the tissues by absorption. They are first taken up by the absorbent vessels, and carried by them into the blood, and circulated by the blood through the whole body. They cannot pass into the cellular tissues of the stomach, except by means of these vessels and the bloodvessels. The vessels of the stomach might contain more in proportion than the blood in general circulation, but it would be pretty evenly diffused throughout the system. If two grains were found in the stomach, could not tell exactly how much there would be in the whole system. The stomach weighs about four ounces, and the blood, usually, about forty pounds. It would be a simple sum in proportion.

I have observed the effects of alcoholic liquor in *post-mortem* examinations. If the patient was taken sick in the night, called for rum, and fell into spasms and convulsions, which required two to hold him, and died between 10 and 11 the next forenoon, and the stomach was found reddened, and the muscles flaccid, there might have been various causes of death, such as apoplexy or inflammation of some organ. The appearances might be consistent with death from liquor, but would not prove it. Liquor produces convulsions, recurring until death, called rum-fits, between which



the patient is often conscious, though generally confused and trembling. If the person had been seen to be trembling and drunk before, it would indicate *delirium tremens*. These symptoms are not consistent with death by strychnia. The symptoms before, and the condition of the body after, death, seem to point to some other cause of death than strychnia.

English chemists have thus far been unable to detect strychnia after it has entered the blood. Have never known it to be done in my own experience. I heard Dr. Hayes's testimony. The methods he detailed were not the approved and usual ones. In the connection and order of experiments they differ from the methods which have been passed upon and approved by chemists.

Strychnia is difficult to detect; we are frequently unable to discover it where it is known to be present. I should not consider that brucia would render it essentially impure, as the latter is found in commercial strychnia. Many old tests have been abandoned. Nitric acid is an old test. It has since been discovered that it produces no coloration with strychnia, but does with brucia. Per-oxide of lead, as a test, was introduced about fifteen years ago. No one test is absolute, and unless each one is very characteristic it should be ruled out. At the best, the tests are merely cumulative evidence. A new test was discovered last year. New tests are used because the old ones were not entirely satisfactory. The tests already known, may be relied upon as inducing a strong belief; they do not amount to a demonstration. They are not so certain as those for mineral poisons, which can be detected beyond all doubt.

Most of the alkaloids have a bitter taste, some of them as bitter as strychnia. Rhombic prisms and rhombohedrons are entirely incompatible with four-sided square prisms. Octohedron and four-sided prisms are really of the same crystalline system, and are found in numerous other substances; quinia, morphia and codeia crystallize in same forms. The octohedron results from merely a shortening of the prism, the pyramidal terminations coming together.

If the symptoms before death and the appearances after, were characteristic, chemical analysis might be evidence of the existence of strychnia, and that death was caused by it, but a man may have poison in his stomach and still die from another cause.

The symptoms before death and appearances after, are together very reliable. I consider that, in this case, the two classes of evidence point in different directions.

A series of colors are produced by the color tests—blue, violet, red and reddish-brown. Unless all these appear in order, it is not a perfect test. Per-oxide of lead, bi-chromate of potash, oxide of manganese and ferro-cyanide of potassium, all produce the same colors. I should apply all the tests known. There are several tests not mentioned by Dr. Hayes; one of them is burning

of strychnia. It burns with a large, yellow flame and smoke, and all disappears.

*Cross-Examined.*—I consider that rigidity ought to be found as a *post-mortem* appearance. Dr. Taylor is good authority. He does not say that rigidity is always found. Distension of vessels of the brain is a most common appearance. Fluidity of blood is common.

The absorbents are small vessels that take up liquids and carry them into the circulation. They are very small, and exist all over the stomach. Strychnia passes through the absorbents into the circulation, and after its action the patient dies.

The stomach, after death, will take up liquids, like other dead membranes; is called cadaveric imbibition. If I had found strychnia, I should test it to be satisfied as to what it was. Crystals form better from some solvents than others. Sulphuric acid does not change the color of some alkaloids. I think codeia and quinia will not change colors. I am not confident about the concentrated acid. After the alkaloid is obtained, the action of strong sulphuric acid is a preparatory test. Then add bi-chromate of potash, we have blue and violet, passing to red color. I do not think chemical tests alone are absolutely reliable. I think there is such a thing as a demonstration by chemical analysis proving beyond a possible doubt. The steps spoken of would lead to a very strong belief. Should try all the tests known, in order.

There is a new test, discovered within a year—the perchloride of antimony. It first became known to me about six months ago, in the *Journal of Pharmacy*. I have never tried it; it is described as being exceedingly delicate.

I have seen Dr. Wormly quoted. I never have seen any book of his. As to blood in left ventricle, Dr. Taylor's opinion is that the condition of the heart is no evidence as to whether the death is caused by strychnia or not.

Know of no process recognized as Otto's. *Stas* differs a little from Flandin by using tartaric acid. I thought the use of caustic lime in the analysis of animal solids containing strychnia, belonged to Dr. Green. I don't think strychnia has ever been discovered in the tissues.

I was in Europe in 1829—from that to 1832. Strychnia was discovered in 1826. Experiments on animals had then been made. I don't know that any man had been poisoned by strychnia at that time. I have studied chemistry from fifteen years of age to the present time, and attended lectures in this country and in Europe. Have worked in my own laboratory. I originally pursued the practice of medicine; mineralogy and chemistry have taken the place of it. Chemistry is my principal business. Have been away, examining mines, during several seasons; have made geological surveys in different States.

If strychnia is in feathery crystals, two grains would be less than a third of a teaspoonful. I spoke of its bulk to Mr. Met-



calf, and he weighed it to satisfy himself, and was surprised at its bulk. I have not stated it was nearly a spoonful. I have no personal experience of fatal cases of poisoning by strychnia. I have never extracted strychnia from the human stomach. Have searched a good many for it, but have never found any yet. I speak from my special study of poisons.

Cod-liver oil, with concentrated sulphuric acid, will give precisely the same color as strychnia does with sulphuric acid and bichromate of potash. Bile, cod-liver oil and sulphuric acid, give red color. Strychnia is administered as a medicine in very minute doses, increasing them gradually.—Fluidity of the blood and congestion of the brain are very common in cases of sudden death. I have been engaged as chemist for the United States government. I don't expect to find cod-liver oil in the form of crystals. Oil of vitriol would discolor it. The crystals of strychnia, when pure, are white or nearly so. The whole mass of the blood would not contain the same proportional amount of poison as the absorbents and vessels of the stomach. There might be more in the absorbents.

*Re-called.*—I have had a very extensive experience in examining human stomachs for poison—some forty in all, and twelve within the last year. The shortest time I should require in a case of strychnia poisoning would be ten days.

(To be continued.)

## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, APRIL 25, 1861.

DECEASE OF N. I. BOWDITCH, ESQ.—This sad, although not unexpected event, which occurred on the 16th inst., touches so many hearts in our community, that we cannot refrain from putting upon record at this time, when the departure of every good man from among us is doubly felt, our sense of the loss which this city has sustained, and our deep sympathy with those whom the sundering of the most tender family ties calls to be no common mourners. We do not propose to enter upon any biographical notice of Mr. Bowditch—that would be out of place here—but merely to speak of some of those traits of character which brought him more or less into relation with our profession, or those who are the special subjects of its care. The most prominent characteristics of Mr. Bowditch may be said to have been perfect honesty, simplicity and integrity, together with a strong love of justice, inflexible uprightness and unstinted benevolence. These were united with a most untiring diligence in the pursuit of all honorable objects in which he became interested. There was a transparent truthfulness and conscientiousness about him which charmed all hearts. His manner was peculiarly winning and gentle. Who that has once listened to the silvery and musical tones of his voice can ever forget their sweetness? The expression of his finely-modelled face was singularly kind and benevolent. There was not a look in it which could repel the most humble applicant for sympathy or aid. With all his gentleness of manner, there was no want of the most entire manly energy and decision. His ready sympathy with all good objects called forth the most prompt and efficient

action. When he felt interested, he spoke out plainly and unhesitatingly. His whole air was expressive of a straightforward manliness.

It has been our privilege for some years to know Mr. Bowditch, especially in his relations to the Massachusetts General Hospital, of which he was for many years one of the most devoted officers, having served as Secretary, Trustee, Chairman of the Board, and latterly as Vice President of that Institution. There are hundreds of patients that have enjoyed the privileges of the Hospital who will bear him always in the most grateful remembrance. His visits to its wards were not limited to those days when his official duties made it incumbent upon him to be there, but hardly a day passed, when he was in town, that did not see him wending his way in that direction. These visits were usually made in the afternoon, when he had the fullest opportunity for unrestrained intercourse with the patients, and they were looked for on their part as one of their choicest privileges. He took special interest in the personal wants and sorrows of the sufferers about him, and made them feel that he came as a personal friend. Any one meeting him in the vicinity of the Hospital would generally be attracted by the beautiful flowers which he carried, and a visitor to the wards would almost always see these tokens of his kindness on the little tables by the bedside of the sick—gifts which none perhaps appreciate so well as they. Throughout the season of fruits, a daily and most liberal gift of the choicest in the market was sent to the Hospital by Mr. Bowditch, to be distributed among the patients. Nor did his gifts stop here. He was sure to learn if any one leaving the Institution was in any great pecuniary strait, and his hand was ever ready to relieve such a want. Even after patients had left the Institution, we have known acts of his beneficence to those whom he had only been acquainted with as its inmates, and who could present no claims to his regard but the simple fact of their necessity. Delicacy prevents our alluding to a special instance of his benevolence thus worthily exercised, which came under our particular observation—doubtless there are many such, known only to the objects of them and the Omniscient Ruler of the Universe, for there was no ostentation in his charity.

In his relations to the medical profession, particularly as a Hospital officer, Mr. Bowditch was characterized by a most liberal and honorable spirit. He appreciated most fully the genius, so to speak, of the profession. There was no narrowness about him. He was ever ready to second any plan for the carrying out, to the fullest extent, such measures as the Board of Physicians and Surgeons deemed expedient for accomplishing the objects of the Institution. And without undervaluing the great services of the many gentlemen who have served in the same capacity, in its government, we may safely say, that no Trustee has ever done more than he to build it up and sustain it, and give it the honorable place which it now holds. In his decease, Boston has lost one of its brightest ornaments, but his example is one which will not soon be forgotten. The following resolutions were passed at a meeting of the Trustees of the Massachusetts General Hospital, held on the 17th inst., on the announcement of his death:—

*Resolved*, That the Board of Trustees of the Massachusetts General Hospital have heard with unfeigned sorrow of the decease, on yesterday evening, of Nathaniel Ingersoll Bowditch, Esquire, its respected Vice President.

*Resolved*, That his long connection with this Institution as Secretary, Trustee, Chairman of the Board and Vice President, extending through a period of thirty-five years; the untiring devotion of all the faculties of his mind and heart to the promotion of its interests; his fidelity, intelligence, ability, patience and firmness in the discharge of duty; his gentle, joyous and modest demeanor, at all times and under all circumstances, so peculiarly remarkable in him; his sympathy with suffering and his many noble and generous acts for its alleviation, so characteristically performed, and so beneficial and grateful to those who were the subjects of them; in short his whole character, moral and intellectual—constantly developing and maturing—and his whole life—always growing wiser and nobler and more useful to the last—have won for him the respect, admiration and love of all the members of the successive Boards of Trustees of this Corporation, and of the Physicians and Surgeons and other officers who from time to time have been connected with it, and demand from us this tribute of regard for his memory.

*Resolved*, That this Board, as a mark of respect for the character and services of its late Vice President, will attend his funeral in a body, provided the same be in accordance with the feelings of his family.

*Resolved*, That we sympathize deeply with the family of our deceased friend in the severe dispensation of Providence which has fallen upon them, and respectfully tender to them this token of our sorrow and regard.

*Resolved*, That the above resolutions be entered on the Records, and a certified copy of them transmitted to the family of the deceased.

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WEEKLY MEDICAL JOURNALISM.—In the last number of the *Medical and Surgical Reporter*, a weekly Medical Journal published in Philadelphia, is a clever



editorial on the influence of journalism on medical progress, which, in the main, we fully endorse. In allusion to the history of medical periodical literature, in this country, however, we beg to correct the statement, that until quite recently the profession of our country has only had this species of literature in the quarterly, bi-monthly and monthly forms. So long ago as the year 1823, the first weekly Medical Journal was commenced in Boston, styled the *BOSTON MEDICAL INTELLIGENCER*; and in 1828, was issued the first number of this *JOURNAL*, which has continued uninterruptedly to the present time. It is gratifying to the friends of medical advancement, that our sister cities, even at this late date, have copied our example, and that both New York and Philadelphia now can boast of at least one creditable weekly medical periodical. We sincerely hope that the wide-spread influence they must necessarily exert, may, as we cannot doubt it will be, for the extension of the principles of sound medical learning, and they may thus prove "the conservators of medical opinion and progress." All matters of an historical nature, however trivial and unimportant in themselves, if recorded at all, should be recorded correctly, and it has been solely to this end that we have alluded to what, under other circumstances, we should have passed by without comment.

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**BOSTON DISPENSARY.**—The following is a summary of the number of patients treated at the Boston Dispensary for the six months ending April 1, 1861:—

Whole number during the six months, 6,821. Central Office, 3,068. Medical service, 1,874—Males, 459; females, 759; children under fifteen, 617. Surgical service, 1,194—Males, 422; females, 337; children under fifteen, 435. Patients at their homes—whole number during the quarter, 3,753—Males, 637; females, 1,433; children, 1,683. Discharged cured or relieved, 3,499. Removed to Hospital, 96. Died, 117. Number of prescriptions dispensed, 17,688. Central Office, 8,328; District Physicians, 9,360. Average cost of each prescription, four cents.

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**LONG INCUBATION OF VACCINATION.**—A correspondent writes to us:—"One year and a half ago, I vaccinated a little grandchild of mine, six months old. It did not work, and the three incisions made, rapidly healed up. She has never been vaccinated since; but about five months ago, all three places became sore, and she had the true vaccine pock. Her father vaccinated several children from her, and it worked well in every case. I saw the child last week, and found the well-marked, characteristic cicatrices."—*Med. and Surg. Reporter*.

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**ALTHOUGH** we have not much faith in medical legislation in this country, owing to the instability of the enactments of State Legislatures, we still welcome any successful effort to throw around the people legal safeguards against the impositions of quacks. The Louisiana Legislature, through the influence of Dr. J. H. Stevens, has recently passed "an act relative to practitioners of medicine," which forbids any one practising medicine in that State, without making affidavit before a Justice of the Peace, that he has received a degree of Doctor of Medicine from a regularly incorporated medical institution in America or Europe. The affidavit is to be recorded by the Parish Recorder; any person practising without having made such affidavit, is not permitted to collect fees, and is liable to a penalty of \$20.—*Am. Medical Times*.

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**REVACCINATION.**—The Report of the National Vaccine Board for the year 1860 has been presented to the Privy Council. The Board have no evidence whatever that the frequent repetition of vaccination is necessary or even desirable; but they state that many facts tend to render it not improbable that vaccination performed in infancy may lose its protective power after adolescence. On these grounds, they add, revaccination at an early adult age would appear desirable. The Board supplied 219,490 charges of lymph in the course of the year.—*London Lancet*.

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**DEATH OF AN AGED ENGLISH OBSTETRICIAN.**—Charles Earle, Esq., died recently at Norfolk, Eng., aged 84, having been in practice for 60 years. "As an obstetrician, Mr. Earle was most successful, and enjoyed a very extensive practice. In the *Journal* of the Provincial Medical and Surgical Association for

1846, he published a "Report of Obstetric Cases occurring in Private Practice" during a period of forty-six years; 4,320 cases are recorded, 17 of which alone proved fatal. He always had a great aversion to the use of instruments (although most dexterous in their application), and never resorted to them until convinced that nature's efforts were unavailing."

A BOARD of Medical Officers, to consist of Surgeons C. A. Finley, C. McDougall, and W. J. Sloan, has been ordered to assemble in New York City on the 1st of May, or as soon thereafter as practicable, for the examination of assistant surgeons for promotion, and of such candidates for appointment as may be invited to present themselves before the Board.—Dr. Wm. V. Keating has been elected Professor of Obstetrics in Jefferson Medical College, to fill the chair recently vacated by the resignation of Dr. C. D. Meigs.

### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, APRIL 20th, 1861.

#### DEATHS.

	Males.	Females	Total.
Deaths during the week, . . . . .	37	33	70
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	39.7	39.2	78.9
Average corrected to increased population, . . . . .			88.65
Deaths of persons above 90, . . . . .	1	1	2

#### Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
18	0	3	3	0	0	0	0	4

#### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	29.698	Highest point of Thermometer, . . . . .	62°
Highest point of Barometer, . . . . .	30.064	Lowest point of Thermometer, . . . . .	32°
Lowest point of Barometer, . . . . .	29.100	General direction of Wind, . . . . .	W. & N.E.
Mean Temperature, . . . . .	45°.43	Am't of Rain (in inches) melted snow . . . . .	3.116

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 585.

	BAROMETER.					THERMOMETER.				SNOW & RAIN.		Mean Amount of Cloud. 0 to 10.
	7 A.M.	2 P.M.	9 P.M.	Lowest	Highest	7 AM	2 PM	9 PM	Mean	Time 15 minutes.	Mean	
Monday, April 8,	29.3	29.18	29.14			41	48	47				
Tuesday, " 9,	29.18	29.22	29.33			45	51	47				
Wednesday, " 10,	29.39	29.41	29.42			44	52	49				
Thursday, " 11,	29.32	29.24	29.16			47	54	48				
Friday, " 12,	29.13	29.8	29.12			50	56	49	48			
Saturday, " 13,	29.20	29.27	29.39			46	51	44				
Sunday, " 14,	29.51	29.55	29.51			37	56	48				

REMARKS.—The most cloudy week for more than a year, with little rain and with a barometer standing at a low point. *Prevalent Diseases.*—Irritation of the *urinary system*, especially the kidneys, *still* prevailing. The latest chlorate of potash catastrophe has bridled that hobby for good, as, previously, it was difficult to separate here, the symptoms of the disease from those of the injudicious use of that otherwise useful remedy.

ERRATA.—Page 237, line 1, for "aged 57," read *aged 37*. Page 238, 25th line, for "for further delay. With a view," &c., read *for further delay with a view, &c.*

PAMPHLETS RECEIVED.—Sixth Annual Report on the Births, Marriages and Deaths in the city of Providence, for the year 1860, &c. By Edwin M. Snow, M.D., Superintendent of Health and City Registrar. (From the Author.)

MARRIED.—In this city, 18th inst., Moses Williams Weld, M.D., to Eliza G., daughter of the late Moses Everett.

DEATHS IN BOSTON for the week ending Saturday noon, April 20th, 70. Males, 37—Females, 33.—Accident, 1—apoplexy, 2—aneurism of the aorta, 1—imperforate anus, 1—congestion of the brain, 1—disease of the brain, 1—bronchitis, 1—cancer (of the chest), 1—cholera infantum, 1—consumption, 18—convulsions, 3—diphtheria, 4—dropsy of the brain, 3—erysipelas, 1—scarlet fever, 3—disease of the heart, 2—disease of the hip, 1—infantile disease, 1—influenza, 1—intemperance, 1—laryngitis, 1—disease of the liver, 2—congestion of the lungs, 2—inflammation of the lungs, 3—marasmus, 2—old age, 3—paralysis, 1—peritonitis, 1—pleurisy, 1—premature birth, 2—puerperal disease, 1—congenital obstruction of the rectum, 1—ulcers, 1—unknown, 1.

Under 5 years of age, 26—between 5 and 20 years, 6—between 20 and 40 years, 17—between 40 and 60 years, 15—above 60 years, 6. Born in the United States, 43—Ireland, 27.



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DR. ROBIN'S MEMOIR ON THE ANATOMY AND PHYSIOLOGY OF  
THE MUCOUS MEMBRANE AND THE EPITHELIUM OF THE  
UTERUS DURING PREGNANCY.

[Continued from page 266.]

§ 4.—*Condition of the Internal Surface of the Uterus at the Spot where the Placenta was located, after that Organ has been detached.*—Let us now see what we find on the uterine side, just at the surface where the placenta was inserted. We here observe that this organ has retained the inter-utero-placental decidua (*la sérotine*), except the thin superficial layer which has been detached, and carried away by the placenta.

This portion of the uterine mucous membrane, left full of vessels distended under the form of large sinuses, in reality has not yet become deciduous, at least in a direct way. That condition lasts all the time that its vessels are continuous with those of the muscular coat, and while, being vascular, it continues to be nourished. This peculiarity is the more striking, since we are always astonished to see, on dissection, how the tissue proper of the mucous coat which forms this membrane, is very small when compared with the diameter of the large sinuses between which it is interposed under the form of thin coats or walls of separation. This tissue is of a reddish color, deeper than the decidua properly so called. Finally, and it is an important fact, it does not show itself between the inter-utero-placental decidua and the muscular coat of the uterus, a new thin mucous coat of replacement, as one already exists there between the latter and the uterine decidua.

Moreover it is only by degrees, during the period of the lochia, that the inter-utero-placental decidua exfoliates and is eliminated. At that time only it is replaced by a continuation of the thin mucous coat of replacement over the place which it occupied and to the depth of the exfoliation.

The inter-utero-placental decidua exhibits a very different appearance, according as we examine it, the placenta still adhering in

the uterus of a woman who has died at the seventh or ninth month, or in that of a woman who has died from two to ten days after confinement. In the first it is thin, as large as the placenta, the sinuses are flattened, more broad than thick, except in case of distension by an injection, and only those least bulky are cylindrical. Its surface is slightly roughened, but it is relatively smooth when compared with what is found in the second case.

After confinement, the contraction of the uterine walls diminishes very much the extent of the surface of the inter-utero-placental decidua. It is soon reduced to a breadth of  $2\frac{1}{2}$  to 3 inches nearly, and this diameter goes on constantly diminishing. From being almost circular, which it was, its form becomes irregularly oval, its great diameter lying in the direction of the length of the uterus, its outline sinuous, dentated and ragged. This membrane also gains in thickness what it loses in extent during this contraction. At the same time its surface becomes wrinkled, roughened and nodulated; its tissue becomes brownish or ruddy in color, and it softens by degrees, taking on a surface of mucous or pultaceous consistence.

In a woman who has died some days after confinement, we find the remains of the inter-utero-placental decidua, or the serotina, have acquired a thickness of from 15 to 18 millimetres ( $\frac{5}{16}$  to  $\frac{7}{16}$  of an inch), and even more in places. The salient irregular edges of this layer which is, as it were, applied to the internal face of the uterus, and which adhere intimately to it, are continuous with the new thin mucous membrane which clothes the rest of the uterus. The latter is of a rosy color, generally smooth, slightly glistening also, except in those cases in which a sanguineous or purulent mucus covers it; the surface of the thick layer which forms the inter-utero-placental decidua, on the contrary, under these conditions is rough, as it were tuberculous or irregularly nodulated here and there. It has a pultaceous or mucous aspect, softened and easy to raise by scraping; its color is a reddish brown or gray, inclining sometimes to black; at other times, on the summit of the irregularities or projections of the surface, and even uniformly, it takes a gray tint, in consequence of a true mortification.

It is not rare to see, on the surface of this coat, vascular orifices filled with reddish-brown or slightly-colored fibrinous clots. If we follow these clots through the thickness of the membrane, by dissection with the scissors, we soon come to the sinuses of the uterine muscular coat, supplied with vessels very voluminous at this place as well as elsewhere. We are struck with the cavernous, areolar appearance which the numerous anastomoses of these large vessels give this coat, as often as we open them. At the same time we notice that its thickening and the projections which it sends out on the internal surface of the uterus, are chiefly owing to the coagula which fill and distend the sinuses more or



less. As soon as we empty these out, we perceive that the spaces which separate them are very inconsiderable; they are represented by a slight thickness of tissue which adheres intimately to the muscular coat of the uterus, but the latter, being much softer, can be easily and entirely separated by scraping.

In autopsies of puerperal fevers, I have often seen this coat, rough or superficially flaky, blackish and pultaceous, taken for the remnants of the foetal placenta adherent to the uterus and in process of decomposition, by persons who had no knowledge of the previous facts. We find, in fact, this coat more or less softened and putrefied under the preceding conditions.

The farther the time of the death is from that of the delivery, the more the remnants of the inter-utero-placental decidua diminish in extent and thickness, and the more they soften. But even when their gradual disappearance has become complete, the place at first occupied by this coat remains a long time irre recognizable, for the reason that the new mucous membrane which has replaced it is rougher and more projecting than that which occupies the rest of the uterine surface, and which had begun to form before the delivery.

§ 5.—*Upon certain Peculiarities in the Mode of Connection between the Placenta and the Uterine Mucous Membrane in various Domesticated Mammalia.*—If we examine the uterus of a doe rabbit at the beginning of gestation, we there find bi-lobate placentas corresponding to each ovum; but these placentas rest directly upon a large projection of the uterine mucous membrane resembling a *mucous layer*. When we detach these placentas, the surface of the layers in question appears slightly depressed at the centre, like an ulcer, on account of a projecting edge which runs circularly beneath the rest of the layer. This depression appears tufted and of a paler red than the rest. These are the projections of the mucous membrane which constitute the maternal placentas.

The swollen portion of the mucous membrane which forms the maternal placenta, shows a homogeneous section, a fleshy aspect, and is reddish gray. It is made up of a woof of lamellar tissue, as in the mucous membrane in its neighborhood; but besides this, we see there a considerable quantity of fibro-plastic fusiform elements, and especially of homogeneous amorphous matter, finely granular, and interposed between the fibres. The vessels, more voluminous than in the rest of the mucous membrane, for all that, do not present the aspect of *sinuses*. I have never found in this tissue, which owes its thickness to this amorphous matter and to the fibro-plastic elements, any follicular glands, similar to those of the mucous membrane, interposed between the ova. The surface of these enlargements, or maternal placentas, is plicated, and presents a considerable hypertrophy of the conical vascular villousities, which we see in every part of the mucous membrane. These folds and villousities are dovetailed with the villousities of the foetal placenta,

by simple juxtaposition, however, and without any radicular penetration one into the other.

The folds and villosities of the maternal placentas are covered by a grayish coat, in which we find a few scattered fragments of the villosities of the foetal placenta, torn at the separation, but especially large epithelial cells with numerous nuclei, and the sheaths which they form about the villosities of the hypertrophied mucous membrane. These are the hypertrophied cells themselves, and in which are noticed very many nuclei, which make up the greater part of this gray coat.

We find in the bitch, also, a grayish coat, analogous to what we have just pointed out in the doe rabbit, but it is more adherent to the mucous membrane, and a portion of it remains attached for some days after the separation—a very small portion, however.

In the sow, the mucous membrane of the uterus, naturally at first sufficiently movable upon the subjacent coat, gains still more in amplitude and mobility under the influence of the impregnation. Very much congested throughout its whole extent, it presents to the view here and there a kind of caruncles or appendices formed by the duplicature of the mucous membrane, which for the most part are in a state of manifest œdema, and have somewhat the appearance of small cysts. The whole surface, besides, is lubricated with abundant mucous secretions, which bathe the envelopes of the foetus and facilitate their gliding about. The foetal pouches are not intimately connected with the uterine mucous membrane at any point of their surface; they are only in contact with this membrane. From this arrangement it happens that we can, at any moment of the pregnancy, obliterate all these foetal pouches, one after the other, with the greatest facility; simple pressure, applied in a downward direction, to overcome the contractions which separate these pouches, suffices to attain this result. During labor, the envelopes of the foetus do nothing but glide over the mucous membrane of the uterus; there is absolutely nothing detached from them, and at no place is there any solution of continuity. The vessels of the mucous membrane are more voluminous at the location of the ovum than elsewhere, but they nowhere form sinuses. The papillæ of the mucous membrane are larger in these spots. Apart from this slight difference, the mucous membrane is in exactly the same condition in the points corresponding to the ova, as in the intervening spaces. The grayish coat, soft and pulpy, which lies on the surface of the allantois, analogous to that of the doe rabbit, but more delicate, is formed of epithelial cells more bulky than in other parts; the latter show an enlarged nucleus, with a nucleolus. These cells are sometimes isolated, and then again re-united into layers or sheaths, preserving the form of the vascular papillæ which they cover. We find among them sheaths of nucleated epithelium, showing the tubular glands or mucous follicles which clothe this kind of epithelium.



In the sow, the allantois, in which the branches of the umbilical artery of the foetus ramify, and which represents the placenta, is constituted as in the human species (see §1 of the first part of this memoir), except that its tissue is paler and more transparent; the nuclei are more separated, because the cells, to form which they are joined together, are larger; the nuclei, at the same time, are a little smaller and more transparent; it is the same in the cow. The allantois of the sow is studded with little papilliform projections, flattened, large, excavated, traversed by a single capillary loop, and sinuous, in which the arterial and the venous branch are distinctly separated from each other. The capillaries of the allantois, for the rest, have a similar structure with the capillaries which we find in the tissues of the adult.

The allantois of the sow is uniformly clothed with a layer of prismatic epithelial cells, finely granulated, regular, and each showing a little nucleus, oftener spherical than oval, and without any nucleolus. Here and there soft, pulpy projections appear on the allantois, forming a sort of gray marbling on the surface of this membrane. They are formed by the accumulation of prismatic cells similar to the preceding, mixed with tessellated and spherical cells having large nuclei, like those which line the uterine mucous membrane. I shall describe these in §3 of the second part of this essay.

It is through this epithelial coat, soft, grayish and pulpy, which, as I have already said, in the sow, resembles the grayish, friable, *inter-utero-placental* coat of rabbits with young, that the phenomena of the exchange between the constituents of the maternal blood and that of the foetal take place at one and the same time. Here, also, the connections between the mother and the foetus are connections of contiguity and not of continuity, and the exchange between these two is made molecule by molecule, by endosmosis, through quite a considerable thickness of tissue, in a mediate way, and not by direct communication.

These cells correspond with those I have pointed out in the human female in the *inter-utero-placental* decidua. And still further, they are the ones which constitute that coat of a whitish gray, opaque, soft, friable, croupy or diphtheritic aspect, or, better still, a mortified appearance, which is interposed, in the rabbit, between the *foetal placenta* and the thick layer of uterine mucous membrane already named the *maternal placenta*. This grayish, friable, epithelial coat is the only portion of the uterine mucous membrane which becomes deciduous in the rabbit, and, besides, it is not formed from anything but the epithelial coat interposed between the mucous membrane, properly so called, and the foetal placenta, which goes on gradually thickening in proportion as the pregnancy advances; it corresponds, in animals, to the epithelial coat of the *inter-utero-placental* decidua in the human female, pointed out in the preceding paragraph. The friable, *inter-utero-placental* coat is thick enough

at the end of pregnancy to form a kind of layer or grayish cushion, which is not very strongly attached to the mucous membrane itself, from which it may be easily separated. It is carried away by the foetal placenta, with which it has an equally slight adherence, for the reason that it interlocks itself, to a limited degree, with the folds or filaments of the surface, but nevertheless is easily separated.

This grayish, friable, non-vascular coat, made up of epithelial cells, described farther on in the third part of this memoir, is formed of a single row of cells at the beginning of gestation, and has not, yet, the characteristics, already described, which it acquires by degrees as it thickens. It then makes the connections between the foetal and the maternal blood more and more mediate, since it is through it, that the venous elements of the vascular portion of the uterine mucous membrane come in contact, molecule by molecule, with the placental villousities, and the immediate elements rejected by the foetus are in the same way transmitted by exosmosis. The expulsion of the placenta easily takes place in consequence of its friability and slight adhesion. It is very probable that delivery takes place when the thickness of this grayish epithelial coat has become so great that this transition of matter from the foetus to the mother, and reciprocally, may become impossible or too slow.

In the cord, the chorion and its villousities are formed of cells which are placed in juxtaposition with each other, but remain still easy to separate and isolate from each other when the foetus has grown to the length of about seven inches. In the chorion itself, they are applied against the coat of lamellar tissue interposed between the chorion and the amnios. Along the villousities, they are applied directly over the enlarged capillaries which they represent. The cells easily detach themselves from the capillaries, whether they remain juxtaposed under the form of a sheath, or float isolated from each other. These cells are from fifteen to twenty-five thousandths of a millimetre in size ( $\frac{1}{100000}$  to  $\frac{1}{20000}$  of an inch), and are polyhedral, with rounded angles, and their sides curved, where they reciprocally press on each other. Their lines of contact are pale, grayish and regular. When they are isolated, for the most part they become spherical. Their outline is regular; their substance grayish and fairly granulated. They have one or two spherical nuclei, of from eight to ten thousandths of a millimetre (about  $\frac{1}{100000}$  to  $\frac{1}{20000}$  of an inch) in diameter, the most of them without nucleoli, but containing many deep-colored granulations sufficiently large. We find also with these isolated cells, in the field of the microscope, some free nuclei similar to the preceding.

The capillaries which traverse the villousities, or which, if we please, with the cells which cover them, constitute the latter, are of the first variety or have a simple tunic, in the rounded extremi-



ties of the subdivisions of the villositics of the foetal placenta of the cow. Their parietes are homogeneous, transparent and studded with ovoid longitudinal, large and pale nuclei.

It is a mistake to say that in the human female the blood is interposed, infiltrated somehow, between the ramifications of the placental villositics as far as the foetal face of the placenta, in contact with the chorion, so that we may see it by transparence through that and the amnois. If upon a placenta still adherent to the uterus, as I have done, we cut these membranes through their whole thickness up to their contact with the cotyledons, there is in reality no flow of blood from the interstices of the villositics, except that we have cut the latter, and there results an issue of foetal blood, and not maternal, which fills them. It is true that in examining the placenta by transparency through the intact amnios and chorion, the tissue of the first shows a uniform blood-red color, which may make us believe in the presence of blood directly in contact with the chorion; and this all the more, since pressure makes this color paler and less deep than it was before. But the first of these facts rests wholly upon this, that the villositics whose ultimate ramifications are scarcely visible to the naked eye, are full of foetal blood, showing the appearance of a mass or coat uniformly red when they are examined through the amnios and the chorion. As to the less vivid tint which this mass takes, when we glide the finger over the foetal or amniotic face of the placenta, that is owing to the fact that this pressure is enough to chase the blood from the compressed portions into the neighboring portions of the villositics. For the rest, forcible injections of the uterine sinuses do not penetrate into the thickness of the placental parenchyma, except a rupture occurs (and these are easy to detect when they are produced); the injected matter does not come in contact with the chorion, and is not infiltrated into the placenta.

[To be continued.]

## TRIAL FOR MURDER BY POISONING.

(Concluded from page 273.)

*David Balch.*—Reside in Boston. Am a chemist and manufacturer of chemicals in a small way. Have been engaged in that business six or eight months. Have studied chemistry several years. Am a graduate of the Scientific School at Cambridge.

I heard the method detailed by Dr. Hayes. It is not the best method; is not given by the authors I have read on this subject. I know of no authority for those tests. No two of these tests would be sufficient.

Have seen the effect of strychnia upon a rabbit. The effect was to contract the muscles; to form a bow from head to tail; become stiff, body as flat as though a heavy weight had been put

on it. I think it would have been possible to have held it out by the hind leg.

Bitterness is a common characteristic of the alkaloids. Strychnia is very insoluble in water—requires 7000 parts to dissolve it. Should not think that whiskey would influence the taste. It is common for the alkaloids to be precipitated. Strychnia never forms rhomboid prisms. It is not uncommon to find substances which crystallize in form of prisms and octohedrons.

I believe new tests are being discovered. I think there is no chemical test which will determine it absolutely. I regard the number of tests as merely cumulative. Nitric acid was never a test for strychnia, to my knowledge. New tests are used because the old ones are not absolutely certain.

*Cross-Examination.*—I mean to say that there is no chemical test which would absolutely satisfy me that any particular substance was strychnia, unless by experiments upon animal life. I have seen strychnia in all its different forms—not its salts. I buy and sell strychnia. I deal with responsible houses, and buy it of them for strychnia and sell it for the same. If I had tried all the experiments, and all were satisfactory, I should have very little doubt. I should try it first upon the living animal.

*Dr. Hayes re-called.*—I consider the evidence derived from a chemical analysis of the contents of the stomach very important and trust-worthy, as bearing upon the character of the death; the evidence gains weight in cases where the physiological symptoms exist, and should be connected with them, but in those cases where the symptoms of poisoning are not, and under the conditions cannot be duly estimated, a chemical demonstration of the presence of a mortal dose of poison in the stomach after death, I should consider sufficient evidence of the cause of death. The results are equally certain in regard to strychnia as in case of poisons of the metallic class. In either case, we separate from the stomach and its contents the poisonous substance, and we are able to exhibit it in its pure form—in its form as changed physically—its form as entering into combinations characteristic of the substance, and we can decompose these combinations and reproduce the substance originally taken.

The methods of analysis adopted in this case were those approved by the highest authority and used by the best toxicologists. I did not, on my direct examination, state all the tests I used.

The substance obtained from the stomach was in the form of white and perfectly pure crystals when the tests were applied. The test mentioned by Dr. Jackson has been known to me more than a year and a half. I have made experiments with it, and do not consider it a valuable test for alkaloids, nor does it distinguish strychnia. I have never added it to my list of tests, nor should I use it. I know of no old tests abandoned because new ones were



found. I know of no imperfection in the tests now used, and which have been in use many years. Improved modes of applying them have rendered them more accurate in the discovery of minute quantities of strychnia, and this has been accomplished in adopting measure and weight as applied to the tests. The new test spoken of has not been adopted by eminent or accurate chemists. It is not found in Taylor, nor in the more important treatises by Dr. Wormley. I adopted Otto's process for the fluids and Flandin's for the solids.

The bath for the frog test was proposed by Dr. Marshall Hall, and an improvement made by Dr. Harley is introducing the suspected fluid into the stomach. That mode was adopted by Dr. Wormley, and I think by Dr. Taylor. It has characters to some extent confirmatory of the other tests. It could not be relied upon alone for the existence of strychnia. It is valuable when connected with one or more of the other tests, and is sometimes a very convenient test because it can be applied to impure liquids containing strychnia.

I do not think the term "cumulative evidence," as applied to the tests in these cases, a correct one. The result of every test is an addition to our previous knowledge of the most positive kind. Suppose I hold in my hand a crowbar, there is no person who would not call it an iron bar—but that would be no evidence to the chemist; he would apply a test—pour upon it a little aqua-fortis, and after a few minutes allow it to flow into a vessel. The appearance of the part to which it was applied would be that of a light-grey metal. If there were black portions, we should call it steel. The liquor which we have taken, mixed with a little yellow fluid, gives a rich dark-blue color; another fluid will produce a black color. No other substance but iron will exhibit these effects. Our whole knowledge in analytical chemistry is obtained through the aid of tests. Their results settle all questions which can arise, and afford the only means of advancing in accurate knowledge. In the process where oxalic acid was used and afterwards an excess of hydrate of lime, the lime formed with that acid a salt insoluble in the alcohol, which was used in the next step. The oxalic acid, as an acid, then ceased to exist. No other body whatever was in the strychnia I produced. The next further step of the process alone would have excluded oxalic acid; and the strychnia obtained was not only alkaline, but perfectly pure. No oxalic acid was employed in separating that portion used in the experiment upon the frogs.

I have spent the week days for more than twenty-five years in the laboratory. These two sheets (minutes) contain notes of a part of the operations carried on, and one of them is in part a repetition of the other. They would not be intelligible to any common person, and I doubt if any chemist could read them. I have not written out any examination, or any part of my testimony.

*Cross-Examined.*—An analysis for strychnia is as certain as an analysis for a metallic poison. There are no difficulties in detecting strychnia, except what belong to other bodies. There are difficulties in detecting all poisons. No chemist at the present day would say strychnia could not be found in a stomach. Pure morphia is equally white with strychnia. I saw the new test in the *Chemical Gazette* or *Times*, about a year and a half ago.

If our knowledge was perfect, nothing could be added. I don't consider my knowledge of chemistry perfect. I conducted a chemical manufactory in Roxbury nearly twenty years.

*Direct resumed.*—Poison of any kind, taken into the stomach, is taken up with the food by the absorbents so as ultimately to enter into the circulation of the blood, in which it acts, or is acted on, so as to produce the effects of poisoning, and if in sufficient quantity, death follows from this action. After death, entirely new conditions follow. When death ensues, the absorbents would be full of the poisoned fluid. By a very curious process, which depends on the porosity of the vessels in part, and on their mechanical structure, a solution of the poison will pass *in* at the same time that the watery fluids are passing *out*; the poisonous or foreign body remains in the porous mass. In this way a solid poison slowly disappears from its place in the stomach, and is transferred to and remains in the tissues. An illustration is offered in the process of tanning skins.

After life ceases, such a process goes on. Know of no case where death was produced by strychnia until after it entered the absorbents.

*William Perry.*—Reside in Exeter. Am a practising physician and surgeon. Have been in practice forty-six years. Held an appointment in a medical school. I have used strychnia for thirty years—used it a good deal. I never have seen it produce violent spasms; have used it so as to produce some effect.

I don't know of any necessary characteristic which is always found. In almost every instance there are spasmodic action and after-contractions. I can't conceive of any action of strychnia upon the muscles after death. Excessive use of alcoholic liquor produces a relaxation of the muscular fibres and is antagonistic to strychnia. I have seen no case where strychnia has been taken in this way, but I think there must be some modification of its effects. I should expect to find a modification, or something between the two extremes, where there had been a free use of spirituous liquor.

The condition of the heart must depend on various circumstances. If the system was relaxed, I should expect the blood to flow as usual. I should not attempt to form an opinion from that.

If a person in his usual health on Monday morning, and sober, eats a hearty supper at night, is taken sick in the night with spasms, and dies the next forenoon from a rum-fit, it would be a



case entirely out of my experience. I never knew a person to die in the first fit. If I found the person dead, and two grains of strychnia in his stomach, I should consider it beyond controversy that that caused his death.

It has always been considered that the absorption of liquids goes on in the stomach. The liquids are absorbed before the solid food is digested. I can't understand how the poison gets digested, goes into the circulation and back again, and kills in ten minutes. I do not know but what it is so—but I do not understand it.

*Samuel B. Swett.*—Reside in Exeter. Physician and surgeon—twenty-nine years in practice. Pursued studies a year or two in Europe.

There is no necessary *post-mortem* characteristic of strychnia that is always found. Rigidity of muscles found in every case I have seen but one.

I agree with the statement of Dr. Perry, but there are cases where rigidity exists after death from alcoholic convulsions. The effect of long-continued use is to render muscles flaccid.

I have never seen a person who died in a drunken fit bathed in perspiration. If two grains of strychnia were found in the stomach, I should have no hesitation in attributing death to that poison.

### Bibliographical Notices.

*Eighteenth Report to the Legislature of Massachusetts relating to the Registry and Return of Births, Marriages and Deaths in the Commonwealth, for the Year ending December 31st, 1859.*

THE new registration law did not go into operation until June, 1860, and consequently the Eighteenth State Registration Report (1859) has not profited by the greater accuracy and completeness in the returns which are expected to result from this law. We hope that hereafter the returns will, in these respects, be more worthy of the care and skill devoted to their analysis by Dr. Curtis.

During the year 1859, there were registered, in a population of about one and a quarter millions (1,231,535, U. S. Census, 1860), 35,422 live births, 11,475 marriages, and 20,976 deaths; being an increase of 931 births, of 948 marriages, and of 200 deaths as compared with those registered in 1858. These figures show an increase of 1442 births, and a decrease of 634 marriages and of 64 deaths, as compared with the annual average of the five years 1854–58.

The natural increase of the population, as shown by the excess in the number of registered births over the number of registered deaths, was, in 1859, 14,446, which is greater than in any one of the previous five years. The census of 1860 shows an increase in the population of 99,166 since 1855. The rate of increase since 1855 has been 8.15 per cent., while between 1850 and 1855 the total increase of the population was 158,715, and the rate of increase was 16.30 per cent. In 1855 it was estimated that 38 per cent. of the increase

during the preceding five years was due to the excess of births over deaths, and 62 per cent. was accounted for by the excess of immigration over emigration. It appears that in the four years 1855-59, 70.3 per cent. of the increase was due to the excess of births, and only 29.7 per cent. was attributable to the excess of immigration. This decrease in immigration is coincident with a change in the destinations of those who leave Great Britain and Ireland. In 1850 and 1851, no less than 80 per cent. of the emigrants from those places came to the United States; only 6 per cent. went to Australia, and 14 per cent. to the Canadas and elsewhere. In 1858, only 52 per cent. of the whole emigration was to the United States, while 34 per cent. was to Australia.

Some interesting information is given about the process of taking the census in this country and in Europe. To obtain the census of the United States, forty-four hundred enumerators were employed, which number gives one to nearly every twenty thousand of the population; several months were occupied in the process, and the cost has been \$55.00 per thousand of the inhabitants. The last census of Great Britain and Wales was taken in a single day, March 31st; the enumerators were at the rate of one to every six hundred of the inhabitants, and the cost was \$40.00 per thousand of the inhabitants.

The number of births registered in 1859 was larger than that of any other year. The rate (1 to 34 persons living) was below that of 1856 and 1857, but is about the average (1 to 34.4) of the seven years 1852-58. The birth-rate in England was 1 to 29.6 for the ten years 1847-58. It is alleged that defective registration will account for the lower rate of births in this State, which, as was remarked in our notice of the Registration Report of 1858, does not accord with the number of persons at the child-producing age living in the respective countries.

The rates vary from 1 in 30 in Suffolk County, to 1 in 66 in Dukes County. During the seven years 1852-58, the range was from 1 in 28 in Suffolk, to 1 in 69 in Nantucket. Any one who has ever visited Nantucket will recognize the natural but unavoidable necessity of its low birth rate.

The birth rates of the several cities of the Commonwealth vary considerably during these seven years. The highest is 1 to 27 of the living, and this rate obtains in Lawrence; in Boston, Cambridge and Lynn, the rate is 1 to 28, while in New Bedford it is 1 to 40, in Salem 1 to 41, and in Newburyport 1 to 48. The rate is not uniform through the year, but it is a little curious that, with us, for every seventeen births in the first half of the year there are nineteen in the last half, while in England for every seventeen births in the first half there are but sixteen in the last half. We notice an erratum on page 19, by which the words first and last are transposed, and the two parts of the paragraph made to disagree.

There were 237 illegitimate births recorded in 1859, against 293 in 1858. The whole number of this class of births in the seven years 1852-58, was 1167, being an annual average of 167 such births. It is well recognized that marriages decrease in times of financial distress, but we have never seen it stated that an increase in the illegitimate births is one of the many evils usually resulting from a monetary crisis, though perhaps such an increase is a natural correlative of the matrimonial falling off. The excess of females over males in this class



of births, which during the seven years 1852-1858 was in the ratio of 100 to 91, did not obtain in the year 1859, in which year there were registered 119 males to 118 females born out of wedlock.

The proportion of the sexes among the registered live-born during the year 1859, was 106 males to 100 females. In England and Wales, the proportion during a series of years is 104 males to 100 females. In Kentucky, it is 110 males to 100 females. In connection with this point, Dr. Curtis takes occasion to correct some statements in the Registration Reports of Kentucky and Rhode Island, by which he was made to assign a general excess in the age of the fathers as the cause of this excess of male births. In fact he simply suggested that this was, perhaps, one among various causes, which tended to produce the result. He has been supported in this opinion by prominent foreign authorities, and brings forward, from the Kentucky reports, additional facts in its favor. In Kentucky, the average age of men at marriage is 4.8 years in excess of that of women; in Massachusetts, the excess is 3.8 years. In Kentucky, as we have seen, there are 110 male births to 100 female births, and in Massachusetts there are 105 to 100. It is obvious that this point can only be settled by a thorough analysis of *all* the facts bearing upon it, and neither the pages of a Registration Report nor the space allowed in the JOURNAL give sufficient room for its discussion.

Though the number of births is larger than in any year, it is noteworthy that the number of children born to American parents has actually diminished, and is less than in 1854. This is an actual and not merely a proportional loss. We regret that tables similar to those prepared for previous reports, to show the percentages of births of different parentages and of the marriages between persons of different nativities, were not continued in the present report. It is well that important points should be presented in the same form in successive years, and these points are important as affording the best test of the extent to which the native and the foreign American are becoming socially one people.

In spite of the absorbing importance of the subject, that part of registration reports, which relates to the marriages, is usually the least interesting. In the present report, however, Dr. Curtis invests it with an adventitious interest by his account of the evidence which marriage registration in England and France gives of the education of the people. It appears that in England, in 1841, 33 in 100 of the men and 49 in 100 of the women made their marks in signing the marriage registers; in 1858, the numbers were respectively 27 and 38 in 100. Outside of the great cities the proportion of men who do not write their names in signing the marriage registers, is nearly the same (34 in 100) in England as in France; the proportion of women is higher in France than in England, the ratios being respectively 55 and 48 in every 100.

Allowing that the defects in the registration of deaths were no greater than in previous years, the year 1859 was one of unusual health in this State, and also in all other places of record. The registered death rate was 1 in 58 of the living, while the average for seven years, 1852-58, was 1 in 55. The rate varies from 1 in 48 in Suffolk County to 1 in 66 in Barnstable and in Norfolk Counties. The diminished rate of mortality is as evident in the larger cities, where registration is most complete, as in the country districts. In the four conti-

guous cities of Boston, Cambridge, Charlestown and Roxbury, which make up the most thickly settled district in the State, the rates have fallen from 1 in 38, 1 in 50, 1 in 43, 1 in 55 respectively, which were the averages for the term of five years, 1853-57, to 1 in 47, 1 in 68, 1 in 55 and 1 in 62. Had the rates stood as high in 1859 as in the five years, 1137 more deaths would have occurred in the four cities than were actually registered. In Boston alone, where registration is quite complete, there were 816 fewer deaths in 1859 than would have occurred had the rate been the same as in the five years 1853-57. In England, the death rate for 1859 was 1 in 45 (22 in 1000), which was the average rate for the ten years 1848-59. In this State the records for nine years, 1851-59, give an annual death rate of over 20 in 1,000 in Suffolk County only, the rate in other counties varying from 14.3 to 17.6 in 1,000. The canonical death rate, determined in England we believe, is 17 in 1,000, and every community with a proper regard for its sanitary reputation should endeavor to reach this standard, and hold itself responsible for all deaths above this rate. Dr. Curtis makes some just and forcible remarks upon the unnecessary amount of sickness and the pecuniary loss, which are represented by any excess over the normal rate of deaths, and refers to the distinct advantages which, in England, have followed upon the various sanitary reforms that have been carried out.

The difference between the death rate of Boston and that of the rural districts is very great, and is, no doubt, in part due to defective registration. The rate in Boston for 1853-57 was 2.614 per cent.; in the rural districts it was 1.623 per cent. In 1859 the rates were, respectively, 2.142 per cent. and 1.598 per cent. In England and Wales the rate for the ten years was, in the country, 1.977 per cent., and in London 2.448 per cent. In spite of the size of London, its death rate is lower than that of some other English cities.

Diseases of the zymotic class were the causes of 5,416 deaths in 1859. The proportion to the whole number of deaths was less than in any of the previous five years. Smallpox was fatal in 255 cases, against 12 in 1858. In 1854 the number of deaths from this cause was 207, and in 1855 it was 328. The disease was less generally prevalent through the State than we had supposed. Of the 255 deaths, 165 were in Suffolk County, 22 were in Middlesex and 24 in Hampden. The whole number of deaths from this cause in the eighteen years and eight months ending Dec. 31, 1859, is 1734, being .61 per cent. of the deaths from all causes.

Whooping cough, as in previous years, was more fatal to girls than to boys; the whole mortality from this cause was 357 (151 boys to 200 girls), and its ratio has been steadily increasing since 1856.

The diseases grouped under the term "typhus (and infantile) fever" caused 932 deaths in 1859; more than half (502), occurred in August and the autumnal months. Most of the deaths from these diseases occurred in the country; there were only 82 deaths ascribed to them in Suffolk County, against 144 in Essex, 155 in Middlesex and 130 in Worcester. The percentage of deaths from these diseases to the deaths from all causes, was 4.38 in 1859; it was 4.65 for the five years 1855-59, and 5.95 for the past eighteen years and eight months.

Diphtheria first appeared in the records as a cause of death in September, 1858, in which year 18 deaths were ascribed to it. We regret to see, by the way, that the popular error in spelling this much-used



word "diphtheria," is countenanced in the report. In 1859 there were 32 deaths from it, 13 males and 19 females. In England, 186 deaths were ascribed to this cause in 1855, 310 in 1857, and 5836 in 1858. To what extent the disease is at present epidemic in any part of this State we have no means of judging, but there can be no doubt of its existence here. It is a little curious, considering the tendency of the disease to prove fatal in women and children, that, so far as our recollection goes, a considerable proportion of the deaths brought to the notice of the profession here has been of young adult males.

Consumption is recorded as the cause of 4,704 deaths (2,039 males, 2,663 females.) Nearly one fourth of the deaths in the State (22.12 per cent.) during nineteen years are ascribed to this cause. In England, the average is something over 12 per cent. The average annual number of deaths from consumption to each 100,000 (there is an error in the figures of the report) persons living in Massachusetts, in the five years 1855-59, was 395. The same in England, in the four years 1855-58, was 268. These numbers are nearly in the proportion of 3 to 2. "In other words, where two persons die of consumption out of a given population in England, three persons die of that disease out of an equal population in Massachusetts."

Child-bearing appears to be more dangerous with us than in England. In the nine years, 1851-59, there were 1,940 deaths from the accidents and diseases incident to parturition. This gives a rate of 67 deaths to every 10,000 children born alive, or 66 to 10,000 if the stillborn are included. In England, there were 51 deaths to every 10,000 children born alive in the twelve years, 1847-58. The proportion varied from 61 (in 1848) to 42 (in 1857) deaths of mothers in every 10,000 child-bearings.

Gout destroyed two persons in 1859.

It would please a disciple of Mr. Buckle to notice how uniform during a series of years, is the proportion which the number of deaths, from some diseases, bears to the whole number of deaths. Thus, the proportion of deaths from what, under the classified arrangement, are called Constitutional Diseases (cancer, tubercular disease, &c.), to the number from all specified causes was, in 1859, 30.84 per cent.; during the five years 1855-59, it was 30.67 per cent. (the extremes being 29.43 per cent. in 1857, and 31.69 per cent. in 1855), and during the eighteen years and eight months ending Dec. 31st, 1859, it was 30.17 per cent. This uniformity is noticeable even in the special forms which such diseases assume. Thus the proportion of deaths ascribed to hydrocephalus during the five years 1855-59, is 2.14 per cent., with a variation in the separate years of only one half (.55) per cent., and the proportion in the eighteen years and eight months is 2.17 per cent. A similar uniformity obtains in other classes of disease, where it was certainly less to be expected. For instance, the proportion of deaths ascribed to the class of Local Diseases (which includes most of the diseases affecting the nervous system, the organs of respiration, circulation, digestion, &c.), is, during the five years 1855-59, 20.94 per cent., with a variation in the separate years of 1.78 per cent., and the proportion in the eighteen years and eight months is 20.66 per cent. We find the same uniformity in the various orders of this class. The proportion ascribed to diseases of the nervous system is, in 1859, 8.14 per cent; it is 8.05 per cent. during five years 1855-59 (the extremes being 7.63 per

cent. and 8.59 per cent.) ; and it is 7.63 per cent. during the nineteen years. Among the subdivisions of this order, we find that the proportion ascribed to apoplexy is, in 1859, .97 per cent. ; it is .85 per cent. in the five years (the extremes being .76 and .97 per cent.), and it is .84 per cent. in the nineteen years. The proportion ascribed to paralysis is, in 1859, 1.77 per cent. ; it is 1.57 per cent. in the five years (the extremes being 1.39 per cent. and 1.77 per cent.), and it is 1.46 per cent. in the nineteen years. A similar uniformity is seen even in diseases classed vaguely as "Heart Disease," "Liver Disease," &c. Even pneumonia and pleurisy, which we are apt to regard as due more than most diseases to particular atmospheric conditions, show a marked uniformity in the number of deaths which they cause. The percentage from pneumonia, for the five years, ranged only between 4.38 per cent. and 5.57 per cent., and was 4.59 per cent. for the nineteen years.

It is only when the facts are regarded in this way that we can clearly recognize how distinct and definite must be the natural laws that regulate the forms which disease takes to produce a certain number of deaths. The influence of local and special causes in the production of disease, is perhaps less than patients, or even physicians themselves, are apt to suppose. It is creditable to the State that its inhabitants should have been dying for some time, in the strictest conformity with natural laws, especially in consideration of the fact that it is only within two years that Mr. Buckle has shown us the advisability of so doing.

It is evident, after all, that we can accept only with hesitation the figures of registration reports which relate to the causes of death. Some points, connected with a few of the more common and easily recognized forms of disease, may be regarded as satisfactorily proved, but many of the details must be very inaccurate. To mention a single instance : Bright's disease is recorded as the cause of but nine deaths in the State during five years, 1855-59. In the same period diabetes is recorded as the cause of 152 deaths. Every physician knows that Bright's disease is infinitely the more common of the two, and perhaps the deaths caused by it were classed under the vague head of dropsy.

The registration reports of Massachusetts enjoy already a high reputation among statisticians, and Dr. Curtis labors with admirable success to make each report an improvement upon its predecessor. Mere arrays of figures are dry husks, and the interest with which these reports are received is unquestionably due to the complete and clear manner in which he sets forth the deductions that may be drawn from these figures.

## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MAY 2, 1861.

**SURGEONS FOR THE VOLUNTEERS.**—The subject of an efficient corps of surgeons to accompany our army of volunteers, is one of so much importance at the present moment, that we cannot refrain from expressing our feelings on the subject. It is one, too, which is beset with pecu-



liar difficulties. Every one knows how such appointments are made in time of peace, when qualifications to meet the sudden emergencies of a campaign are far less thought of than the personal or social qualities of the candidate. We say this without meaning to disparage any gentleman who has held such a commission under the State,—many such we have known who would be fully competent to all that the present hour demands; but it is a fact without question, that there have been those who have held such offices, who would be entirely incompetent to discharge the high responsibilities of an army surgeon in time of war. It is no holiday service that is expected now, and no qualifications short of the highest should authorize the government to entrust the care of the health of our troops to any man. There should be no favoritism here. As is well known, the surgeons of the regular army and navy have to pass through a severer ordeal of examination than any medical school in the country subjects its graduates to. Shall it be said that our friends and brothers, whose patriotism calls them to the field at this trying hour, shall be subjected to the dangers of surgical inexperience as well? We happen to know that there are those seeking for appointments on the surgical staff at the present time, who are no more fit for them than they are to command a regiment. A medical friend casually mentioned, a day or two since, that he had been applied to by no less than three *apothecary's clerks* for recommendations for the post of surgeon's mate! We see by the newspapers that no military officer enlisted will receive a commission unless he gives satisfactory evidence to the military authorities that he has knowledge enough of the duties of his office to undertake them with a reasonable belief that he will discharge them with honor; so should it be with the appointment of surgeons. This is a matter in which unprofessional opinion is worth nothing. The Governor should have a body of advisers among the leaders of the profession in the State, who should decide on the fitness of every candidate. Rather than such important offices should be filled by incompetent persons, it would be better if the national government should be appealed to, to supply from its own staff the needed surgeons, or at once to institute examinations and give commissions to as many as the occasion requires. We have great confidence in the sagacity of our State government at the present time, and are assured that his Excellency the Governor will do all in his power to meet the necessity which has come so suddenly upon us. We write without any personal knowledge of his action in this matter, and without intending to reflect on any past appointment. Some of the candidates we have heard mentioned, are eminently qualified for the office which they seek, while others are as emphatically unfit. The office is one which should not be filled except on the strongest professional claims—claims of which only members of the profession are competent to judge.

In connection with this subject it gives us pleasure to state that on Saturday last, in response to a call in the newspapers, from several of the leading members of the profession, a meeting was held of those medical gentlemen who are desirous of specially fitting themselves for the present emergency, in the department of military surgery. At the request of that meeting, Dr. Henry J. Bigelow, the Professor of Surgery of the Med. School of Harvard University, consented to give a course of lectures and demonstrations on this important subject, at the College in Grove st., which he commenced on Monday last. The lectures

are free to members of the profession, and any physician desiring to avail himself of the opportunity, can do so by leaving his name with Dr. J. Mason Warren, No. 2 Park street. A subscription has been raised to obtain the requisite anatomical material for purposes of demonstration, and it is understood that gentlemen will have an opportunity of practising on the dead body, so far as practicable, all the operations belonging to military surgery. The course is open to all physicians, from all parts of the country.

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A NEW MEDICAL BOOK.—We take much pleasure in announcing to our readers that a book entitled, "*Another Letter to a Young Physician, to which are added some other Medical Papers*," by JAMES JACKSON, M.D., Emeritus Professor of Theory and Practice, in Harvard University, is now in press, and will be issued this week. The distinguished reputation of the author, and his many and valuable contributions to medical literature, render it superfluous for us at present to do more than call the attention of the profession to the above notice.

We understand that an arrangement has been made with Messrs. T. Metcalf & Co., 39 Tremont street, by which any Fellow of the Massachusetts Medical Society may be able to procure a copy of this book, at a great reduction from the regular retail price, by applying at the above place.

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A STEP IN THE RIGHT DIRECTION.—The following bill introduced into the Legislature of Louisiana, by Dr. J. H. Stevens, to which we referred last week, for protection against the evils of quackery, as we learn from the *New Orleans Medical Times*, has become a law. It is rare that legislative action tends so directly towards the formation of the public good, and we cannot but hope that other States will be led to follow this example.

SECTION 1.—*Be it enacted by the Senate and House of Representatives of the State of Louisiana, in General Assembly convened*, That no person shall be allowed to practise medicine, as a means of livelihood, in any of its departments, in the State of Louisiana, without first making affidavit before a duly qualified Justice of the Peace, in the parish wherein he resides, of his having received the degree of Doctor of Medicine from a regularly incorporated medical institution in America or Europe, and designating its name and locality.

SEC. 2.—*Be it further enacted, &c.*, That the Justice of the Peace, before whom the said affidavit is made, be required to furnish to the person making it, a certificate of the fact, and also to transmit a copy of the affidavit to the Parish Recorder, who shall record the same in a book to be kept for that purpose; for which services the aforesaid officers shall each be entitled to one dollar.

SEC. 3.—*Be it further enacted, &c.*, That any practitioner failing to comply with the requirement of the first section of this act, shall not be permitted to collect any fees or charges for services rendered, by legal process, and moreover, shall be liable to a penalty of twenty dollars, for each and every violation thereof; said sum or sums to be collected by indictment or information, as in other cases provided by law.

SEC. 4.—*Be it further enacted, &c.*, That one half the fines imposed under this act shall be paid to the prosecutor and the remainder into the parish treasury.

SEC. 5.—*Be it further enacted, &c.*, That the provisions of this act shall not apply to persons who have been practising medicine for the space of ten years in this State without diplomas; nor to female practitioners of midwifery as such.

SEC. 6.—*Be it further enacted, &c.*, That this act shall take effect from and after the first day of January, 1862, and that all laws, or parts of laws inconsistent with the provisions of this act be, and they are hereby repealed.



DEATH OF DR. HORATIO ADAMS.—The decease of so prominent a practitioner as Dr. Adams, deserves more than a passing notice. After many years of successful practice in Waltham, where he was much respected and beloved, he died on the 22d of April, at the age of 60. He graduated at the Harvard Medical School in 1826, and was admitted a member of the Massachusetts Medical Society, in which he has since held many important and responsible offices, in 1829. In 1858, it will be remembered, he delivered the annual address. The subject was one to which he had given much attention, that of vaccination, and for the able manner in which he treated it, he was complimented at home and abroad. It is believed that he was the first in this country who succeeded in proving the identity of the variolous and vaccine diseases. After reading an account of Mr. Ceeley's experiment of inoculating the cow, he was induced to repeat it, and succeeded in confirming the results obtained by him. From a crust obtained by inoculating a cow with variolous matter, a child was vaccinated, and a vesicle appeared having all the characteristic marks of true cow pox. Thus the identity of the two diseases was proved beyond a reasonable doubt. At the time of his death, Dr. Adams was a censor of the Middlesex South District Medical Society.

One of his own townsmen thus speaks of him:—"It is long since we have been called upon to record the death of one so long and so well known, and so highly respected at home and abroad, as Dr. Adams. For nearly forty years he has been the leading physician in our town, and has thus become intimately identified with a large proportion of our people, professionally and socially. The shock which would otherwise have fallen upon us with still greater weight, has been partially relieved of its severity by the protracted confinement, which has somewhat accustomed us to the absence from his daily walks, of one whose form and countenance were so familiar to us all. But though our eyes had ceased for a time to look upon that manly frame, neither the few months that have past, nor the many years that may come, shall blot from our memories the recollection of as noble a specimen of the physical man as has ever been seen in our midst.

"Dr. Adams was a man after no common model and of no common character. As a physician, his large experience, giving him a power which no merely scholastic learning could supply, united to scientific acquisitions and eminent professional skill, as manifested in his published works and in the high estimate in which he was held by his brethren, secured to him the most unhesitating confidence of all who had occasion for his services. They will feel that the place thus left vacant can never be supplied; that his kindness and gentleness, his professional skill, his varied experience, his watchful, anxious care for them in times of trial and suffering, can never again by them be found united in the same individual. The dignity of bearing which marked his personal demeanor, was but a counterpart of the dignity of character and action which marked his life."

DEATH OF DR. DAWES.—Ebenezer Dawes, M.D., died at his residence in Taunton, on the 20th of April, at the age of seventy years. Dr. Dawes was born in Scituate, and pursued his medical studies with the late Dr. John C. Warren, of Boston. He commenced practice in Taunton in early life, and successfully continued there till his death. The following testimonial of respect from his professional brethren in

that town, shows the estimation in which he was held among those who knew him best.

At an informal meeting of physicians held at the office of Dr. J. B. Chase, Dr. Chase having been chosen Chairman, and Dr. Ira Sampson, Secretary, the following resolutions were reported and unanimously adopted:—

*Resolved*, That by the death of our respected friend, Dr. E. Dawes, the community has sustained the loss of an honest man and a useful citizen,—the sick are bereft of an intelligent, skilful, and kind medical adviser,—and we, his companions, are deprived of an ornament to our profession, a true friend, a reliable counsellor, and a worthy example for imitation.

*Resolved*, That while offering our heartfelt sympathy to his afflicted family, we feel anxious to express our high appreciation of his character as a man and as a physician.

*Resolved*, That a copy of the foregoing resolutions be transmitted to the relatives of the deceased, and to the public press.

(Signed)—Drs. Geo. Leonard, Alfred Baylies, H. B. Hubbard, J. B. Chase, J's B. Dean, Ira Sampson, Joseph Murphy, Wm. J. Burge, Charles Howe, John E. Cobb.

At a meeting of the Suffolk District Medical Society, held on Saturday evening last, it was unanimously voted, that the members of the Society will furnish their professional services gratuitously to the families of the volunteers called into the service of the United States.

### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, APRIL 27th, 1861.

#### DEATHS.

	Males.	Females.	Total.
Deaths during the week, . . . . .	43	38	81
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	39.9	36.8	76.7
Average corrected to increased population, . . . . .	..	..	86.17
Deaths of persons above 90, . . . . .	..	..	..

#### Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
12	0	3	6	0	0	0	1	0

#### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	29.982	Highest point of Thermometer, . . . . .	69°
Highest point of Barometer, . . . . .	30.134	Lowest point of Thermometer, . . . . .	39°
Lowest point of Barometer, . . . . .	29.826	General direction of Wind, . . . . .	S.W. & N.E.
Mean Temperature, . . . . .	48°.08	Am't of Rain (in inches) melted snow . . . . .	0.067

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 585.

	BAROMETER.					THERMOMETER.			SNOW & RAIN.		Mean Amount of Cloud. 0 to 10.
	7 A.M.	2 P.M.	9 P.M.	Mean Height.	Highest Point.	7 A.M.	2 P.M.	9 P.M.	Mean Height.	Time 00 minutes.	
Monday, April 15,	29.48	29.42	29.47	29.336	29.640	41	50	41	48.5	0 hour.	5
Tuesday, " 16,	29.51	29.50	29.49			33	44	43			
Wednesday, " 17,	29.47	29.20	29.09			40	51	55			
Thursday, " 18,	29.15	29.25	29.53			43	46	37			
Friday, " 19,	29.64	29.57	29.50			36	51	45			
Saturday, " 20,	29.40	29.23	29.27			47	62	57			
Sunday, " 21,	29.21	29.07	29.04			58	74	64			

REMARKS.—Wind prevailing from the West and Southeast. Storm from the West on the 17th and 18th.

DEATHS IN BOSTON for the week ending Saturday noon, April 27th, 81. Males, 43—Females, 38.—Accident, 3—apoplexy, 3—inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 2—inflammation of the brain, 1—burns, 1—cancer (of the breast), 1—consumption, 12—convulsions, 4—cyanosis, 1—debility, 2—dropsy, 1—dropsy of the brain, 4—drowned, 1—scarlet fever, 3—typhoid fever, 1— hæmoptysis, 2—disease of the heart, 1—hernia, 1—infantile disease, 2—insanity, 1—intemperance, 1—disease of the kidneys, 1—inflammation of the knee, 1—lumbar abscess, 1—congestion of the lungs, 2—inflammation of the lungs, 6—marasmus, 2—old age, 1—paralysis, 1—premature birth, 2—puerperal disease, 1—sore throat, 3—tubes mesenterica, 1—unknown, 7—whooping cough, 2.

Under 5 years of age, 36—between 5 and 20 years, 7—between 20 and 40 years, 18—between 40 and 60 years, 12—above 60 years, 3. Born in the United States, 56—Ireland, 22—other places, 3.



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VOL. LXIV.

THURSDAY, MAY 9, 1861.

No. 14.

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DR. WARE'S LECTURES ON GENERAL THERAPEUTICS.

LECTURE V.

GENTLEMEN:—We may pass now to a more particular consideration of modes of treatment, and in the first place it is well to form some idea of the general plan upon which we are to conduct the management of both acute and chronic diseases.

It often happens that an acute disease begins with certain prominent and urgent symptoms which inflict so much suffering as to demand immediate relief, independently of any special reference to its future history. It often happens, also, that in such symptoms is comprised the whole of the case, and that, upon their subsidence, recovery speedily follows. This is so, for example, in spasmodic croup, in cholera morbus, in colic, and in jaundice from gall-stones, as well as in many other violent attacks. But this is not always so, for these urgent symptoms may all subside, and yet recovery does not take place. We find they have only been the prelude to some fixed disease that is to run through a certain course. Thus spasmodic croup may pass into severe bronchitis, cholera morbus into gastritis, colic into ileus or enteritis, and jaundice from gall-stones into inflammation of the duodenum, ducts, gall-bladder, or of the liver itself. We cannot certainly foresee which of these directions the disease is to take, but where the suffering is urgent the appropriate means of relief are to be employed at once without special reference to the future. The means used to suspend such symptoms, even if they imply some exhaustion from their operation in one way, are probably in the end conservative by preventing such exhaustion in another way. Still when a distressing symptom can be even nearly as well and as certainly relieved by one remedy as another, that one should be selected which calls for the smallest sacrifice of strength. Thus, at the commencement of pleurisy it is better to relieve the sharp

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catching pain by a mustard poultice and a Dover's powder, than by bleeding from the arm, when there is a fair chance that the milder method will be sufficient; in spasmodic croup it is better to soothe the violence of the attack by external applications, by an opiate, or by some moderate emetic, even the much ridiculed goose oil, than by tartar emetic, or bleeding from the jugular vein. Even without any very urgent symptoms, in most febrile affections, especially when attention is first called to them in the latter part of the day or evening, it is better, in most cases, to endeavor to procure sleep and gentle diaphoresis by a Dover's powder, assisted by a warm foot-bath and free dilution, than to annoy the patient through the night by operative medicines, even though these may be afterwards expedient.

When present relief has thus been given, or when the case presents no symptoms that require it, the first object of attention is the state of the digestive organs. Perhaps there is no point of practice as to which physicians are more generally agreed than that acute diseases go on their course more favorably when the alimentary canal has been well evacuated at the outset. With regard to active vomiting and purging, opinions differ widely, but less so as to the simple evacuation of the contents of the canal. There seems to be good reason for this unanimity. We are to recollect that the state into which the system is thrown by any considerable acute disease, changes at once the relation which exists between the organs and their contents. The normal functions are suspended. There may be food in the stomach not yet digested, or having undergone some change by the disease which renders it an irritant; lower down there may be food partially digested and mixed with secretions of the liver and pancreas; in the large intestines fæces not yet discharged. All these bear a natural relation to the healthy organs; but the organs are no longer healthy, and this relation is disturbed. That which lies quietly in contact with the mucous membrane, in its usual state, will irritate it in the changed condition of disease, just as the presence of the ordinary urine is not tolerated by an inflamed or irritated bladder. The contents of the canal have become foreign substances, they burden the organs, and their discharge removes an impediment to the favorable progress of the case.

These remarks, however, apply in their full extent only to cases of some considerable severity. In slight and moderate ones, in which the functions of the digestive organs are not so entirely suspended, but are continued in a degree, no such interference is expedient. This is more frequently so with regard to the stomach than the bowels, so that an emetic is less often required than a cathartic. It sometimes happens, both in mild and severe cases, that nature takes upon herself this office, and the contents of both the stomach and bowels are spontaneously discharged; oftener the former than the latter. This confirms the expediency of the



practice, but it is quite common to find that the natural effort is insufficient and requires to be aided by art.

It has been generally believed that, in severe cases, active and continued vomiting and purging are of further service in breaking up, mitigating, and shortening the disease. It is a too common impression that a very active disease necessarily requires very active remedies; that if the disease is violent, the treatment should be violent also. This does by no means follow. I will not undertake to say that it may not be sometimes advisable, but, as a general rule, the current of medical opinion now sets strongly in the opposite direction. The urgent symptoms in the early stages of disease may be for the most part combated or alleviated by palliatives, direct or indirect, and the strength of the patient saved. It may happen as a consequence of energetic or heroic treatment, that the patient is obliged to struggle not only with the disease, but with the disease and the treatment together. The plan of management should be followed up with decision, but not always with the measures usually called decided. Decided treatment is not necessarily active, and the latter may be conducted with imbecility and vacillation, as well as the former. Amidst the suffering and alarm of dangerous disease, there may be as much decision and energy in withholding remedies as in using them.

Thus much with regard to the care of the patient in the first days of an acute disease. In its subsequent course, the state of the digestive organs, and, in fact, of the whole series of assimilating functions, is the principal object of attention. No patient is comfortable or prospers well whilst anything is going wrong here. Hence there is to be a careful arrangement of the food, so as to correspond to the power of the organs to receive and act upon it. Hence any accumulation of *fæces* in the canal, is to be guarded against. Hence the presence of all irritating substances, such as vitiated secretions, flatus, or acid matter, is to be watched for, and they are either to be neutralized or removed. In a large proportion of cases, little beyond this is necessary except a due observance of hygienic rules, till, towards the close, the condition of the patient may require tonics or stimulants.

But although this is the general plan of treatment, events may occur, and symptoms may present themselves, calling for direct interference in other ways. The physician is to be watchful as the case proceeds, lest a new element become developed that may complicate it, or transform a safe and tractable malady into a dangerous one. For example, there is a common inflammatory affection of the throat, seen frequently in children as well as others, characterized by an effusion of lymph upon the tonsils, fauces, and surrounding textures. This is a safe disease while confined to these parts. But it occasionally happens, after thus going on for several days, that there is an insidious extension to the glottis and larynx, in consequence of which it has become con-

verted into croup, one of the most fatal diseases of childhood. In a similar way a case beginning with catarrh passes into pneumonia, or beginning with diarrhœa terminates in peritonitis. In most of such cases the new feature of the disease is dependent upon some preceding tendency in the subject, and has its origin in the original condition of the case. Still, even if so, the development places it in a new aspect, and is to be regarded in the treatment.

Chronic diseases are so much more complicated than acute, so different from them in the uniformity and regularity of their course, that it is not easy to lay out so definite a scheme of treatment. The plan on which we proceed requires indefinite variations. We can only approximate to any idea of such a plan, by considering some of the principal varieties under which these morbid states present themselves. Some of them are the result of accidental or occasional causes, and others of permanent, or what are usually denominated constitutional causes, or states of the constitution. Now the same disease may arise in both these ways, as phthisis, or gout, or rheumatism, or scrofula, &c.

Among the first kind are those produced by causes that may have a similar effect upon any individual exposed to their influence; such are those that are the result of acute disease, as chronic bronchitis, diarrhœa, ophthalmia, or the neuralgia which follows influenza and intermittent fever; those that follow special external influences and habits of life, as dyspepsia, various affections of the liver and kidneys, the bronchitis which follows exposure to stone and iron dust, the paralysis and colic from lead, the affection of the bones from phosphorus, the metritis produced by severe or too frequent labors, besides many others.

The cases of the second kind arise, in the common sense of the word, spontaneously; not without a cause indeed, but without any such circumstance in the relation which the individual bears to external things, or to any thing in his habits of life, as can be distinctly appreciated. They proceed from some tendency in his constitution quite independent of the ordinary influences operating upon him, so far as we know what these are. This tendency is either a special one, like that to phthisis, disease of the heart, and asthma; or a general one, which renders the patient liable to attacks of various kinds at different times, without any particular tendency to a particular form of disease.

It is not intended to imply that cases are often to be exclusively attributed to either of these modes of origin. When a disease is the apparent result of a distinct accidental cause, the efficiency of this cause is always modified by something in the constitution of the subject; as where a person is poisoned by lead—which seems as clear a case of disease externally produced, as can well be—for there is here no reason why one, more than another of the many exposed, should be affected, unless something in his previous con-



dition renders him peculiarly susceptible; and so, too, on the other hand, when one of a family after another is affected with phthisis there can be no doubt that its development is modified, as to the period, the form and the intensity of this development, by the accidental influences to which they are subjected. Though no precise line can be drawn between these two classes, there can be no doubt of the reality of such a distinction.

Chronic diseases may be considered in another point of view: they are either functional or organic; the meaning of these terms is sufficiently understood. Functional diseases are always *capable* of recovery, though they do not always recover. Organic diseases imply a permanent change of structure. They are usually progressive, and *may* destroy life; but not necessarily, for they may become stationary, they may be removed by a surgical operation, or they may be got rid of by a natural process—as a tubercle may soften, be discharged and the cavity healed, just as if it had been extirpated by the knife or by caustic. But generally, internal organic diseases ultimately destroy life, either by interfering directly with the function of some vital organ, or else by giving rise to secondary affections which directly destroy the patient, or gradually exhaust his strength.

Functional diseases are by no means inconsistent with some change of structure, but it is a change very different in kind from that which occurs in organic diseases. It is probably rather an altered nutrition, or an imperfect elaboration of the tissues, as a consequence of which they are inadequate to the proper performance of their functions, than any such absolute change in the tissues themselves. The bones become soft in various degrees from an insufficient deposition of lime, and in the same way other textures, as the muscles, voluntary and involuntary, and in fact all the textures of the body, may be analogously affected. Such changes may be recovered from, whilst proper organic changes are not recoverable except by their removal by nature or art.

But in many functional diseases no appreciable change of texture can be supposed, and there is reason to believe that they are dependent on some disordered condition of the blood. Formerly, much was attributed to this origin, and “humors in the system” were supposed to play an important part. This was a vague and indefinite expression, which expressed, however, a real condition. It has given place to what is taken to be a more scientific explanation, which refers the same phenomena to chemical changes in the blood, or the presence in it of various chemical products. It may be doubted whether anything has been gained in accuracy by the substitution of a scientific for a popular expression of an unknown quantity. Possibly something may have been lost, since this view assumes that we are in possession of a degree of knowledge we do not possess, and leads to the use of remedies in conformity with the theory. As recoveries take place under all modes of practice,

all success is supposed to confirm the theory, and we are thus diverted from relying on the only solid foundation of a good practice, experiment. The less the terms we employ assume a knowledge of the nature of disease we do not possess, the less likely we are to be misled by them. The simpler they are, therefore, and the less they aim to express any theoretic opinion, the better.

The most that can be said is, that there is probable evidence that many chronic affections are most easily explicable upon the supposition of some altered condition of the blood, especially those which at different times show themselves by various symptoms arising in different parts of the system. Thus, a patient has an obstinate eruption upon the skin, which after a while subsides and is supplanted by as obstinate a headache or neuralgia, and this may be succeeded by dyspepsia or by diarrhœa. Of interchanges of this kind, examples are constantly occurring in practice, where a succession of morbid exhibitions seem to be the common result of some one fundamental cause, of the nature of which we know nothing. The cause operating in this way, however, need not necessarily reside in the blood, but may exercise its influence from other quarters. It may be connected with the nervous system, or depend upon something in the condition of the stomach, the liver, the kidneys or the womb.

The greater part of special chronic diseases have some such origin, so far as we at present understand them, and the local manifestation of them consists either in functional disturbances, as dyspepsia—in structural changes capable of removal, as chronic inflammation—or in true organic diseases. It will be manifest how much any general idea of their treatment must depend upon the judgment formed of them in this respect. When long continued, or when their origin—as is very often the case—is to be dated far back in the history of the subject, a great many elements enter into the analysis, doubts arise as to primary and secondary symptoms, as to cause and effect, so as to render the inquiry extremely complicated and consequently difficult.

Although we cannot, then, as to these diseases, lay down so distinct a plan of treatment as with regard to acute, the same general principles, before explained, are to underlie it. We are to depend essentially on the natural power of recovery, and shape all our measures with the view of supporting it and removing obstacles to its efficiency. With this view, we are—

1st, To take care of the mode in which the several functions are performed, and to bring them all, as nearly as possible, to the healthy standard, more especially those which directly contribute to a healthy condition of the nutrition of the system.

2d, To attempt, by direct or indirect means, to remove any local or constitutional morbid condition which we may be able to detect.

3d, To suspend, in the patient, any habits or modes of living which are peculiar to him, or which may have had any possible in-



fluence in the production of his disease, and, where no indication of this sort presents itself, to subject him, as formerly suggested, to an entire change of that residence, diet and occupation under which it has originated and grown up.

4th, There is another important particular. In the above remarks, reference has been chiefly made to maladies of a constitutional origin, or where the local affections are secondary and consequential. But there are cases strictly local in their origin, and the constitution, when affected, becomes so in consequence of the local trouble. The treatment will be directed differently in the two cases. In the first, the chief object will be to improve the state of the general health, confident that, when this is done, the local disease will then subside by the natural effort. In the second, the local affection is to be the chief object of attention, with the assurance that when removed, the state of the system will, in like manner, return to its normal condition. We have familiar and abundant examples of this. Take as an example that very common state of the os uteri, known lately by the designation of ulceration. In some cases, the simple cauterization of the part speedily cures it, and the general health is rapidly restored. In other cases, and unhappily in a majority of them, this application is attended with only temporary good effects, if any; and it is only after a long perseverance in general measures, among which hygienic ones are the most important, that a healthy state of system is brought about, and with it an abatement of the local affection. Illustrations of the same kind are found in many of those affections of the throat and larynx which are so much the subjects of local treatment, and so often without any thing more than a temporary alleviation; and in some affections of the anus, rectum and vagina. It is usually the case, it is true, that a combination of both local and general treatment answers a better purpose than either alone, such is the reciprocal influence which the state of the part and the state of the system have upon each other, especially where they have co-existed for a long time. But an exact determination of the relative predominance of these two elements in a case is, nevertheless, of great importance in regulating the treatment, and also in estimating the amount of benefit likely to be derived from it.\*

(To be continued.)

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\* I would refer the student here to the once celebrated work of Mr. Abernethy "On the constitutional origin and treatment of Local Diseases." This work, after exercising a predominant influence over the treatment of disease, for more than one generation of physicians, has now fallen into comparative obscurity. Although, no doubt, its peculiar views were stated as too extensively applicable, it is nevertheless true that it presents the principles above referred to with great clearness and force. The mode of practice it recommends is, in very many cases, extremely serviceable, and is far from deserving the disrepute into which it has fallen. Applied indiscriminately, as it once was, both popularly and professionally, it was no doubt productive of much evil.

## Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

[The following was received too late for insertion in its proper place.—SECRETARY.]

JAN. 28th.—*Fracture of the Upper Extremity of the Femur.* Dr. JACKSON exhibited the specimen, which was received from Dr. B. LINCOLN RAY, Assistant Physician of the Butler Hospital, Providence, R. I., with the following history of the case.

“The patient was 93 years old; had been eccentric to the verge of insanity for some years; and for many months manifesting senile decay of both mental and physical powers. At the time of the accident she was much emaciated, and quite feeble, though able and disposed to walk about the room. Her strength was, however, evidently failing rather fast before the accident, so that she moved about much less than formerly, and passed considerable time daily on her bed.

“On the day of the accident she was sitting up, in a rocking-chair. The attendant passed into the next room, for an instant, leaving the door between them ajar; but hearing a sound as if something had fallen, came to the door and saw the old lady sitting, fair and square, upon the floor, directly in front of the chair. The chair was still rocking, and the immediate and obvious inference was, that she had slipped from her chair. The attendant thinks that the legs were both extended straight forward on the floor in front of her, but perhaps she may be mistaken on this point, as the patient was much wrapped up in blankets. On being helped up, she showed little or no sign of pain, but declined to bear much weight on the left foot. No suspicion of fracture was entertained for several days; the slight pain and swelling being regarded as the result of a bruise. About a week after the occurrence, the results of examination were thus recorded:—‘There is no shortening of the limb; no apparent displacement of the trochanter; free rotation, with no crepitus, and but little pain. As the patient lies on her back, the limb is everted, but can be brought into the opposite posture, and kept there without pain. The limb is somewhat swollen. There is extensive ecchymosis on the posterior and inner surfaces of the thigh, but little or none about the trochanter. Slight and firm, and somewhat circumscribed swelling in the groin, with discoloration.’ No redness or heat of thigh. She gradually failed, and died a month after the accident. Some febrile reaction was noticed at times during the last week.

“At the autopsy, we found the fulness of the limb owing to a large effusion of offensive matter, apparently broken-down blood with pus. This was quite extensively diffused between the muscles, around the upper half of the thigh, and also filled the medullary cavity of the bone.

“I ought to have mentioned that we were *at no time*, able to detect shortening. Whether the fall did occur in the way the appearances indicated, I cannot tell.”

The bone having been prepared by Dr. R., presents the following appearances. The neck is broken at its junction with the shaft posteriorly, and anteriorly rather below this. Upon the fractured surface of the neck is a large and prominent ridge of bone, extending verti-



cally and fitting into a corresponding cavity in the opposite fractured surface; this prominence effectually preventing any shortening of the limb. There is, however, a marked rotation outwards; the fractured surface of the neck anteriorly being somewhat separated from the opposing surface, and carried forwards. Posteriorly the two surfaces very nearly correspond—that of the neck overlapping the other a little. A large portion of the trochanter major is broken off, and drawn backwards and downwards. The trochanter minor is so comminuted as not to be recognizable. Some new bone is thrown out in various places about the broken fragments, but no union of any consequence seems to have taken place. Upon the articular surface are some small, but very marked patches of eburnation, and upon the neck is an appearance as of acute caries, about three fourths of an inch in diameter, and connected, perhaps, with the suppuration found after death.

FEB. 25th.—*A large multilocular Cyst, developed in the Fundus of the Uterus.* Dr. JACKSON showed the specimen, which he had received from Dr. A. W. THOMPSON, of Northampton, with the following history of the case:—

The patient was an unmarried, light-mulatto woman, 33 years of age. In early life she had been at service in Northampton; but of late years, previously to 1860, she had resided in the West Indies. In the Spring of 1856 she had “typhoid fever,” and, after some months, a second attack of the same. During convalescence from this last, she was frightened to swooning by a lunatic. This was followed by excessive uterine hæmorrhage, and on an examination of the abdomen in regard to it, the tumor was discovered. From that time she was wholly unable to do any work, and was confined most of the time to her bed or a couch, though occasionally able to take a short drive. She became much emaciated, and increasingly so, as long as she lived. The tumor also went on increasing, and the strength was greatly reduced. The appetite was small and capricious; and from the beginning of her sickness there was nausea, with retching or vomiting. The catamenia were suppressed at first, but throughout her sickness there was an irregularly recurring menorrhagia, with continuous, excessive and peculiarly offensive discharge. There was also an offensive secretion from the axillæ, so abundant as to saturate the clothing.

In June, 1858, she was tapped between the pubes and umbilicus, by Dr. Holm, of St. Croix, the Danish government surgeon, who considered the case as one of dropsy of the left ovary. Eight ounces of fluid only were drawn off; but at two other subsequent operations, a great deal of liquid was drawn off, and at last, a little blood, the punctures having been made between the umbilicus and the spinous process of the ilium.

During her voyage from the West Indies, last July, she was confined entirely to her berth, and arrived here much exhausted. Since that time, she was under the care of Dr. Daniel Thompson, of Northampton, an uncle of Dr. A. W. Thompson. On the 16th of last November, she was tapped with much relief, but there remained a slightly fluctuating tumor in the lower part of the abdomen, and she filled again somewhat rapidly. Jan. 15th, she was excited by an unpleasant occurrence, and became suddenly worse; dyspnœa urgent, preventing her lying down, with great prostration. On the 17th of Jan., the distension was enormous, and the fluctuation perfect as low as

two inches below the umbilicus, where it ceased abruptly. A puncture was made just above the left spinous process of the ilium, and a little above the line at which the fluctuation ceased. A pint and a half of limpid, amber-colored fluid flowed rapidly, but abruptly stopped; a second puncture was then made on the median line, just below the umbilicus, and with the same result. A male catheter was then introduced through the canula, and gradually swept round, and in this way about twenty pints of fluid were slowly removed, when the flagging strength of the patient forbade any further operation. The second puncture having been left open, there was a constant oozing for the next twenty-four hours, and probably to the amount of twenty or thirty pints. The patient was more comfortable, but sank and died, about the middle of the night of the 19th.

On dissection, Dr. T. removed from the abdomen about sixty pints of fluid. The tumor occupied the cavity of the pelvis and that of the abdomen, as high at least as the umbilicus, and was connected by old adhesions with the anterior parietes. It was made up of a collection of cysts that were so delicate as to be ruptured upon the slightest touch, and it was of course impossible to separate the fluid that they contained from that of the peritoneum. The size of these cysts varied from that of a walnut to that of a foetal head at the full term; the smaller ones not projecting into the larger, but filling the spaces between them. Each cyst contained, 1st, a pale amber-colored, watery fluid; 2dly, a gelatinous substance having the same color, but varying much in consistence; 3dly, "semi-organized masses, varying in different cysts from the color of cream to the almost black of clots, as they occur, e. g., in the heart, and in size from an almond to the female hand." These last were thought "to have resulted from some change in the contents of the cyst, supposing them at first to have contained homogeneous amber fluid," but Dr. Jackson, to whom specimens of the masses were sent, regarded them decidedly as coagulated blood. "The larger (older?) the cyst, the more complete was the separation of the three from each other, and perhaps nothing in the autopsy was more striking than the jelly tendency, so to speak, of the contents of the cysts. There was no appearance of viscid, tarry, or granular matter." There was no general peritonitis, but the membrane looked as if soaked by the fluid that had escaped from the ruptured cysts. Anteriorly there were adhesions, and apparently old, between the tumor and the abdominal parietes; a substance having a "scirrhus-encephaloid" look, being left as they were separated. Dr. T. had not supposed that there was anything cancerous in the nature of the case. The uterus contained a small polypoid growth, that was very readily detached at the time of the dissection. Liver and spleen rather large and friable. Legs œdematous.

The uterus is about four inches in length, and the tumor arises directly from its fundus. The parietes of the organ, between its cavity and the inner surface of the cyst, are as healthy as in any other part, and about one half the proper thickness. The cysts, from their extreme tenuity, have been broken down, but the imperfect septa remain; the inner surface being generally smooth and polished, excepting at the fundus of the uterus, where it is quite rough and irregular. To a considerable extent from the origin of the tumor, but varying in different parts, the external portion of the fundus of the uterus is seen to be continued so as to form the parietes of the tumor, which are



thus far firm, opaque, and comparatively thick, the change into the thinner portion being generally gradual. In some places the continuity of the thicker portion of the parietes seems to be interrupted by the development of cysts just beneath the surface, the parietes being there as thin as in any part of the mass. There is nowhere any appearance of cancerous disease; nor are there any fibrous tumors in the womb. The ovaries are large, but otherwise not remarkable.

Dr. J. remarked that he had neither met with, nor heard of any such formation as is here seen, excepting the case that is figured by Cruveilhier (*Anat. Path.*, Liv. 13, Pl. 4). In that case, a pretty large fibrous tumor had formed in the fundus of the uterus, and the large cyst was supposed to have been developed in the substance of the tumor. Dr. J., however, was inclined to question this view of the case; he showed the figure, read what is said of it, and expressed the opinion that the cyst and the fibrous tumor were more probably independent formations.

FEB. 25th.—*Chronic Ulcer of the Stomach.*—Case reported by Dr. JACKSON.

The ulcer measured more than two inches in diameter, was very defined, without thickening or other change of its edges, and had destroyed the parietes of the organ throughout its whole extent, so that the substance of the pancreas formed the base of the ulcer. It was situated midway between the two orifices, more posteriorly than otherwise, and very perfectly resembled a figure of Cruveilhier's (*Anat. Path.*, Liv. x., Pl. 6, Fig. —), except that it was rather more circular, and the base, though irregular, had not the granulated look given to it by the pancreas, which last Dr. J. was inclined to regard as probably a French exaggeration.

The following facts in the case were received from Dr. James Jackson, the attending physician for many years:—The patient was 81 years of age at the time of his death, which occurred on the 12th of February. He had always been an active merchant, and continued to attend somewhat to business until the last year of his life. General health good, until the spring of 1858, when he began to complain of pain in or near the epigastrium, passing through to the back, and recurring frequently every day. He also felt weak, and was troubled by his food. In July, he vomited a large quantity of blood, faintened from the effects of it, and was enfeebled, so that he was upon his couch for one or two weeks, though not confined to his chamber. Dr. J. then regarded the case as one of chronic ulcer of the stomach. The pain was immediately relieved, and there was no return of it until December. It then came on again, and was rather increasing, when, in January, 1859, he fell, and injured his hip. In consequence of this accident he was obliged to keep his bed for a month, and the house for two months; and during this time his stomach was much better than it had been before, showing the effect, as Dr. J. supposed at the time, of entire rest, and a rigidly simple and abstemious diet. For some months he continued better, and went on tolerably well, until towards the latter part of the summer of 1860, when he began to have dyspeptic symptoms, with loss of flesh and strength; the pain returned about midsummer, and increased in severity, so that, during the last few weeks, opiates were required. The appetite failed in November, and never returned; food caused great distress, though he was very cautious as to the quantity, and generally as to its quality.

Vomiting came on, and by this the distress was temporarily relieved; the matters vomited consisting mainly of the food, though, towards the last, mixed with a dark matter, probably the secretions colored by blood. The bowels were sufficiently well, until he began to use the opiates, and no tumor was ever felt in the epigastrium. Finally, in January, he became limited to very small quantities of nutritious liquids and stimulants, being confined to the house, and mostly to his couch. He sat up, however, more or less, until a week before his death, enjoying his friends, and being able to go up two flights of stairs to bed, every night. An acute pulmonary affection then came on, and under this he sank.

FEB. 25th.—*Abscess in front of the Larynx.* Dr. JACKSON showed the specimen, which he had received from Dr. Seaverns, of Jamaica Plain. The abscess extended from the hyoid bone downwards, and irregularly over the greater part of the region of the thyroid cartilage, a small portion of which lay loose in its cavity. The parietes were firm, and the whole appearance of the parts showed the disease to have been of considerable standing. Upon the inside of the larynx there was much tumefaction, and especially above the left vocal cord; but no opening into it from the abscess could be found.

The patient was a stout laboring man, 26 years of age, and rather intemperate. Last August he had a severe inflammation of the throat, with great dysphagia and dyspnoea, and swelling of the throat from ear to ear. The attack subsided in a few days, with a discharge from the throat of offensive pus, accompanied with very offensive breath, but he never did any work from that time, and there was always aphonia with some indurated swelling over the larynx. From the time of the first attack he had one almost every month, and lasting about as long, though not so severe, as the first; the dyspnoea being urgent, though there was little or no dysphagia. During one of these attacks he has recently died.

MARCH 25th.—*Addison's Disease.* Dr. JACKSON showed the renal capsules, and gave the following account of the case, which he had received from the attending physician, Dr. F. A. Howe, of Newburyport.

"The patient was a highly respected lady, about fifty years of age, unmarried, and generally healthy. In personal appearance, she was of medium height, rather slender form, and in complexion a decided brunette, with dark hair and eyes. About two years or more ago, her countenance began to assume a darker hue, though hardly attracting the notice of friends till within a year. The change in color, however, during the last six months, and more especially the last two, was very remarkable, giving her a singular appearance. Aside from the features, she might have passed for a mulatto. At the same time the conjunctiva of the eye was strikingly pale and pearly. The bronzing (for this term most accurately describes the color) was confined to the face, neck, and hands, or those parts exposed to the light and atmosphere. Even the skin of the forehead and behind the ears covered by the hair, was many shades lighter than the exposed parts. The backs of the hands, more particularly at the joints, were very dark, while the palms were light, though covered with brownish patches, and the transverse lines corresponding to the joints looked as if they had been traced with India ink. The same brown patches were very distinct upon the tongue.

"She complained of debility, more or less, during the past year,



but this did not excite special attention till about two months prior to her death, when she supposed she had taken a severe cold. From this time she was unable to take her usual walks; any little exertion, like ascending or descending the stairs, causing breathlessness; and all exercise was followed by great fatigue. It was in consequence of this weakness that she consulted me. Though she had still something of a cough, no other sign of thoracic disease could be detected after a careful examination. The brilliancy of the eye, as well as the normal appearance of the fæces and urine, forbade the idea of jaundice, which was the common interpretation of her case. In reply to all inquiries, she asserted she had neither a pain nor an ache, but was unaccountably weak. She complained much of a 'peculiar sinking or faintness' at the epigastrium. There was oftentimes a sudden and distressing nausea, occasionally ending in retching, rarely in vomiting. This was most frequent in the morning. Her appetite was somewhat capricious. In the morning, in consequence of a disagreeable, bitter, metallic taste in her mouth, she could take but little breakfast, and often loathed food entirely. She generally ate her dinner with a good relish and it rarely disturbed her. The tongue, most of the time, was covered with a thin whitish coat, through which were seen the brown spots above named. There was considerable emaciation, the flesh being soft and somewhat flabby. The pulse was at about 100, full, soft, and easily compressed. She was annoyed for some days previous to her death by a rather strong pulsation of the abdominal aorta, at the lower margin of the stomach.

"With the evidences of anemia before me, and fearing the cause might be organic disease, after trying a mild mercurial course, she was treated with mineral and vegetable tonics, combined with a nutritious diet. Nothing seemed to benefit her more than Blancard's pills of iron and iodine.

"March 24.—She rode nearly two miles in a sleigh, but it was followed by much exhaustion. On the evening of March 27th, I found her lying upon her bed (to which she had been confined the two previous days), cheerful, and expressing herself as having passed a more comfortable day than the one before.

"March 28, 6½ o'clock, A.M.—I was summoned in haste, and was surprised to find my patient apparently dying. Her condition in some respects was like that of one in an epileptic attack. There was no convulsion, but a moderate degree of rigidity of all the limbs; the jaws were firmly closed, and the tongue was caught between the teeth, from which it was released only after considerable effort. The respiration was heavy, hardly stertorous; the pulse was at first imperceptible at the wrist, but after the free administration of brandy and carb. ammonia, it returned, and was for a time quite firm. In the course of an hour, however, the powers of nature succumbed, and she died quietly, without any return of consciousness.

"The friends informed me that, after my evening visit, she had for a short time the same heavy breathing, alarming them somewhat, but it soon ceased. She herself was unconscious of it.

"Relating the particulars of the case to Dr. H. C. Perkins, who was acquainted with the lady, he recalled to mind having read in some periodical an article upon this peculiar bronzing of the skin and its connection with disease of the supra-renal capsules, and subsequently kindly sent me a memorandum, referring to the articles in *Braith-*

*waile's Retrospect.* So entirely did the symptoms correspond to those given by Dr. Addison, that I felt assured an examination of the organs themselves only was wanting to establish the identity of this with Addison's disease.

"An autopsy was made thirty-six hours after death, Drs. Wyman and Perkins present. The rigor mortis very decided; emaciation considerable. The contrast between the color of the parts exposed and those protected from sun and atmosphere was remarkable. The covered surfaces may have seemed lighter by contrast, but for a 'brunette' certainly they were not unusually dark, neither was there any deepening of the color in those parts where pigment is usually found, but the face, neck, and hands, resembled, as I have before said, the complexion of a mulatto more than of a white person. The appearance of the viscera, in situ, was perfectly healthy. The right lung was found firmly bound to the side by old adhesions, and scattered through both lungs could be felt a few small tubercles, but there was not the least trace of active disease in either. The left lobe of the liver was attached at its extreme point to the spleen, but in every respect both spleen and liver seemed healthy. Nothing abnormal was found in the heart, stomach, bowels, nor in the kidneys; but the supra-renal capsules were found diseased and enlarged.

"Dr. Perkins examined a portion of the skin taken from the back of the neck, with the microscope, and reports that he could find no true pigment matter."

The capsules having been cut open, show an extensive deposit of what would generally be called tubercular matter, and more or less opaque. The following is the result of a microscopic examination of the organs by Dr. ELLIS.

"I find nothing more than amorphous and granular matter, with fat. There are also small granular corpuscles, which might indicate tubercle to those who believe in the specific character of that element, but I do not. I think that these, with the other elements, indicate merely the degeneration of some morbid product. Whether this resulted from inflammation or some other process, I cannot say."

MARCH 25th.—*Rheumatism, Cardiac Disease, Peritonitis, and Abscess in the Omentum.* Dr. C. E. WARE reported the case, which he saw in consultation with Dr. C. C. Tower, of South Weymouth. The patient was a boot and shoe manufacturer, 36 years old. He was healthy till the age of 12, when he had rheumatic fever. He had several recurrences of this disease, in one of which, 8 years ago, the heart became affected. Latterly the attacks had become complicated with jaundice. About Feb. 1st, he had almost constant vomiting and distress in the epigastric region, and sank, and died. The patient had a systolic mitral murmur.

At the autopsy the mitral valve was found thickened, cartilaginous, and contracted, the orifice just admitting one finger. The cavity of the abdomen contained three quarts of turbid, purulent serum. There were strong adhesions, with a deposit of plastic lymph between the liver and diaphragm and stomach. The omentum was thickened and contained several cavities filled with pus. One abscess in the small omentum was triangular in shape, each side measuring two inches. The mesentery was thickened, and contained several small abscesses; one in the meso-colon, about an inch in diameter, contained concrete pus. The liver weighed 5 pounds, and was fatty. The gall-bladder contained a dozen small calculi.



MARCH 25th.—*Pyæmia*. Dr. READ reported the case. The patient was a man 21 years old, of fleshy habit, weighing more than two hundred pounds, who was attacked, March 15th, with a severe chill. The next day he complained of severe headache and pain in all parts of the body, looking like a man who had taken a sudden and severe cold. The pulse was at 112, tongue coated, lips dry. On the 17th he had acute pain in the lower part of the left side, and he expectorated a quantity of florid blood, mixed with mucus, after a severe paroxysm of coughing, which lasted about twenty minutes. The pulse was at 118. He grew worse, was delirious, and died on the evening of the 19th, after a paroxysm of violent delirium. There was coarse crepitation in both backs, but no dulness or percussion. Dr. ELLIS saw the patient with Dr. R., and made the autopsy.

The head was not examined. Various parts of the pleural surfaces were covered with soft, recent, fibrinous membrane. Just beneath the pleura, and in the deeper seated parts of the lungs, were yellow purulent-looking portions, most of which were still quite firm, while some were soft and contained a little pus. These were surrounded by dark-red areolæ, and varied from a quarter to a half an inch in diameter. Other firm irregular portions were seen, of perhaps larger size, of a dark-red color, or with yellow intermixed. Some of these were surrounded by yellow, well-defined lines. The appearances were in every respect those belonging to pyæmia. The air-passages were quite red, but not otherwise remarkable. No pneumonia.

Heart normal. No pericarditis.

The right kidney contained a small abscess, surrounded by soft, yellow tissue, the latter being evidently filled with pus, although softening had not taken place. The whole mass was upwards of half an inch in diameter. The mucous membrane of the stomach was normal, but smeared with blackish mucus. Intestines not opened. Other organs normal.

MARCH 25th.—*Symptoms of Cerebral Disease, without Cerebral Lesion*. Dr. READ reported the following case:—

The patient, a man 54 years old, had never enjoyed good health, and about eight years ago had a cough, which reduced him in flesh and strength to such a degree that he was obliged to give up business in the city, and go into the country, in the interior of the State of New Hampshire. At the same time he took gin, for some supposed urinary trouble. In the course of a few months his cough left him, and he began to regain his flesh and strength. After a sojourn of eight years in the country he returned to the city, and engaged in an occupation which kept him up late at night, and gave him a great deal of mental labor. A year ago he had an attack of vertigo, and fell the whole length of the stairs, which confined him to the house for some weeks. At the same time he had an attack of hiccough, lasting a long while; he complained of fatigue and debility, and his appetite failed him. He became irritable and petulant, and the vertigo became a frequent symptom. He gradually became lethargic, though he appeared to be perfectly conscious, and died March 20th.

Dr. ELLIS gave the following report of the autopsy.

More serum than is usual beneath the arachnoid. The convolutions of the brain were thinner and the sulci wider than usual. No marked change in the cerebral substance.

Both lungs were universally adherent, and very strongly so at the

apices, where the thick false membrane contained much fat, in the form of adipose tissue. The pulmonary tissue beneath the latter was very dense, and much of it of a blackish color. In this were several small cavities, containing dry caseous or cretaceous matter, with some which was still quite moist, and purulent in appearance. There were also small masses of caseous matter in the pulmonary tissue. The disease was, however, confined to the superior portions of the lungs, the remainder being perfectly healthy. The liver was of a yellow color, and fatty. The mucous membrane of the stomach was somewhat reddened, but no more than in many cases where there has been no sign of disease before death. Other organs sufficiently healthy.

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## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

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BOSTON: THURSDAY, MAY 9, 1861.

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SINCE writing our editorial of last week, on "Surgeons for the Volunteers," we learn that a body of advisers to the Governor, from among the leading members of the medical profession, has been appointed by His Excellency, and that they hold stated meetings to consult upon all the various matters relating to medical arrangements necessary for the health and safety of the State troops. The members of this commission, of which Dr. George Hayward is chairman, are—Drs. George Hayward, S. D. Townsend, John Ware, S. G. Howe, J. Mason Warren, S. Cabot, Jr., W. J. Dale, G. H. Lyman, and R. M. Hodges.

We understand that several important steps have already been recommended, viz., the appointment of a committee, consisting of Drs. Hayward, Townsend, Ware, Warren and Cabot, for examining all applicants for the office of surgeon or surgeon's mate, officers who, although appointed by the colonels of regiments, have yet to be commissioned by the Governor; and of another committee (Drs. Ware, Howe and Warren) to suggest measures for the maintenance of the sanitary condition of the troops. Dr. S. G. Howe has been sent to Washington, and wherever else Massachusetts troops are at present stationed, to report on their actual condition. The expediency of preparing a manual for the use of surgeons, is under consideration; and last, though by no means least, chloroform has been unconditionally forbidden for any use whatsoever, and an abundance of ether supplied in its place.

We are happy to say that the steps which have led to these active measures were initiated by the Boston Society for Medical Improvement, a committee of which, with the venerable James Jackson as chairman, was appointed to see what could be done to promote the health and secure a good medical outfit for troops leaving for the South. This committee recommended to the Governor the appointment of a medical board, consisting of a sufficient number to secure thorough discussion of all matters properly falling within their sphere. His Excellency, adopting this recommendation, politely named the committee of the Improvement Society, and added to it the names of Drs. Ware, Howe, Dale and Lyman.



We have been thus particular in giving the history of the appointment of this commission, partly to show that it is not a self-constituted one, which has volunteered for the purpose, but especially to prove that the medical profession is equally anxious with all other classes of our fellow-citizens to see that no stone is unturned which shall secure the most efficient means of bringing to a successful issue the conflict which threatens the Union.

New York is already in the field with a board for examining surgeons, which meets at Albany on the 8th of May. Let us not be behindhand.

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SOME of the suggestions of the following communication are met by the appointment of a committee of medical advisers, as mentioned above, but it contains many facts which are of great interest and value at the present time.

**SURGEONS IN THE STATE MILITIA.** *Messrs. Editors,*—Your remarks concerning surgeons for the volunteers, in the last JOURNAL, I am glad to see copied into some of the newspapers. They may be the means of calling the attention of the Legislature to the importance of having a medical staff, as a part of the military system of the Commonwealth. There is no propriety in the law, which provides that surgeons and their assistants shall be appointed by the colonels and majors of the regiments and battalions severally. These officers are likely to offer the appointments to their own family physicians, and every man thinks his own physician an Hippocrates at least, even if his professional brothers *know* him to be a fool.

Service as a militia surgeon, in time of peace, showed me that, if war should come upon us suddenly, it would find the Massachusetts regiments very poorly supplied with medical officers. Arriving on the camp-ground at Concord, at the time of the State encampment, I was applied to within an hour by officers from four different headquarters, to know if I had certain medicines in my possession, the surgeons at these posts being without any supply. I could, on my return, have proved that several surgeons on that field had not so much as a catheter, or a vial of laudanum; and there were those certainly whom you would not have trusted to pass a bougie, and who would not themselves have dared to amputate a finger. Had there been a medical staff aside from the regimental officers, such men could not have had commissions; and had there been any competent adviser to the Commander-in-Chief, it is not possible that these troops, in time of peace, would have been put under insufficient canvass, and on marshy ground, as a part of the First Division were. Irregular practitioners would not have ranked as surgeons, as they did then, whatever may be the case now.

Within a year, I know that a commission as Surgeon's Mate was held by a druggist, who never had any medical education, and unless there was a newspaper error, a druggist held that position in one of the Massachusetts regiments which was sent to Fort Monroe. Within two weeks, a druggist informed me that he had been offered the office of Surgeon's Mate, and was astonished to find that a knowledge of anatomy and surgery would be a requisite for the faithful performance of the duty. The title of the office should be changed to that of assistant surgeon; the present title seems too much like the name of hospital steward.

The Legislature, at its next session, will doubtless make great changes in the Militia Laws, and our profession ought to make strong efforts to see that the medical staff is properly organized and cared for. Even in time of peace there is work to be done, which properly educated medical men only should attend to. The work of one of our encampments is very great. Everything is crowded into three days. More duty is performed by militia than by regular troops in the same length of time. The guard duty is unequally divided, because of the short time they are in camp. No regulation requires that men shall wear thick boots. They have often gone into camp without flannels, and from sentry duty, at night, they have been obliged, without breakfast, to go upon dress parade in the battalion, then into a brigade drill, and from that to a division parade and review. The young men who form our volunteer corps learn easier than regulars, and have quite as much endurance, but they should be seasoned to the work.

A proper medical staff near the Governor would do or could do much to improve the efficiency of our troops. Now is a good time to take steps in that direction.

C. E. B.

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LECTURES ON MILITARY SURGERY.—The *American Medical Times* is publishing a course of lectures on this important subject, by Prof. Frank H. Hamilton. They were originally prepared at the request of several surgeons of the Army, who expressed the opinion that such a course was needed, in order to give, in a condensed and concise form, the principles of that branch of study, and the latest improvements which have been made. The first lecture of the course is printed in the issue for April 27th. Coming from such high surgical authority, these lectures cannot fail to attract the attention of all who are hastening to the field. From Dr. Hamilton we learn that in the United States service the system of ambulances and assistants to the surgeons on the field of battle is lamentably deficient, far behind that of European armies. We hope that the State Medical Commission will see to it that the troops sent from here are provided with everything in this department which humanity and military necessity demand.

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SURGEONS TO THE STATE TROOPS.—Prof. John C. Dalton, Jr., is serving his country as Assistant Surgeon to the Seventh New York Regiment.

Dr. S. A. Green holds the post of Surgeon to the First Massachusetts Regiment, and Dr. Zabdiel B. Adams Assistant Surgeon.

Dr. Luther Parks, Jr., has been appointed Surgeon of the new Light Artillery Company.

These are all good appointments, and our troops will be fortunate indeed if all such offices are as well filled. We would remark, by the way, that two medical officers are quite insufficient, in our opinion, for a full regiment of a thousand men. Double the number would not be too many in time of war, particularly in summer in a southern climate.

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CHLORATE OF POTASH.—From a communication from Dr. Langer, of Davenport, Iowa, we extract the following:—

The statement in the medical papers by contributors from this community, I take to be correct, that last year *over one hundred pounds* of this article were sold by orders of practitioners (three or four) in a community of ten thousand inhabitants. There is a large quantity



of the best French article on hand here, and I am very sorry to say that the former eulogists submit to the popular feeling now to such an extent as not to use it at all. "*Sic transit gloria mundi.*" I had used it, and shall use it in future, according to the recommendation of Sobernheim and others. See *Handbuch der praktischen Arzneimittellehre*, Berlin, 1844, page 246. R. Kali chloric., drach. half; aq. destill., unc. four. M. A. S.; three times daily one tablespoonful to be taken—also as a wash. It was also recommended by Eyr in sore mouth in consequence of mercurial ptyalism. Therefore this ought to be a vindication of Eyr against the statement in the *American Medical Times*, April 13th, 1861, page 245, as follows:—

"Dr. Fountain finally resigned his position in 1854. It was during his practice at this station (in 1851) that he first used chlorate of potash, and observed its happy effects in mercurial salivation. This was four years anterior to its employment by M. Herpin, by whom it is generally believed to have been first used in this affection."

For the constitutional action of this agent, see the proceedings of the Medical Society of Brussels in 1856, if I am not mistaken in the date.

AMERICAN MEDICAL ASSOCIATION.—Notice is hereby given that the Annual Meeting of the Association, appointed to be held in this city on the first Tuesday in June, 1861, will be postponed until the first Tuesday in June, 1862, on account of the unusually disturbed condition of the country.

N. S. DAVIS,	J. W. FREER,
E. ANDREWS,	DE LASKEE MILLER,
J. BLOODGOOD,	THOS. BEVAN,
H. W. JONES,	Com. of Arrangements.

Chicago, April 30th, 1861.

BOSTON MEDICAL ASSOCIATION.—The Annual Meeting of the Boston Medical Association was held on the 6th inst. at No. 12 Temple Place, Dr. J. Mason Warren presiding. Dr. John B. Alley was re-elected Secretary for the ensuing year. Drs. Nathaniel B. Shurtleff, Silas Durkee, Wm. J. Dale, J. Mason Warren and George Hayward, Jr., were elected a Standing Committee. The Secretary reported that two members of the Society—Drs. Woodbridge Strong and Horace W. Adams—had died during the year.

MIDDLESEX SOUTH DISTRICT MEDICAL SOCIETY.—At the annual meeting of this Society, held at Waltham, April 17th, 1861, the following gentlemen were elected officers of the Society for the ensuing year.

*President*, Dr. Simon Whitney; *Vice President*, Dr. W. W. Wellington; *Secretary*, Dr. Alfred Hosmer; *Treasurer*, Dr. R. S. Warren; *Supervisors*, Drs. S. Richardson, L. M. Scammell, and C. H. Allen; *Censors*, Drs. Moses Clarke, Morrill Wyman, and J. H. Brown; *Commissioner on Trials*, Dr. Anson Hooker; *Councillors*, Drs. L. V. Bell, J. Hayes, J. C. Harris, R. L. Hodgdon, J. R. Sullivan, Geo. I. Townsend, A. C. Webber, L. Goodnough, W. J. Currier, J. Pratt, A. A. Kendall, F. R. C. Kittredge, W. M. Bassett; *Essayist*, Dr. R. L. Hodgdon; *Substitute*, Dr. Moses Clarke. *Delegates to the American Medical Association*, Drs. C. H. Allen, J. H. Brown, T. Kittredge, J. C. Harris, Simon Whitney, A. C. Webber, J. Pratt, Anson Hooker, O. E. Hunt, W. W. Wellington, and Moses Clarke.

A. HOSMER, *Secretary*.

THE SANITARY CONVENTION, which adjourned last year to meet May 29th in this city, will in all probability not hold its annual meeting, owing to the distracted condition of our unhappy country. Dr. Edward Mead, of this city, one of the Committee of Arrangements, will give notice in due time to all the members of the Association, and the public at large.—*Cincinnati Lancet and Observer*.

POISONOUS CANDY.—Two cases, in one family, have recently come under our observation of quite severe symptoms of irritant metallic poisoning, from eating the richly-colored candies offered for sale in our shops. The yellow-colored candy (probably from the presence of orpiment) appears to have been the active agent.—*Chicago Medical Journal*.

At the late commencement of the Oglethorpe Medical College, in Savannah, Ga., twenty-one gentlemen received the degree of M.D. The *ad eundem* degree was also conferred on fourteen, and the honorary degree on two—making, in all, thirty-seven.

### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MAY 4th, 1861.

#### DEATHS.

	Males.	Females	Total.
Deaths during the week, . . . . .	35	29	64
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	37.4	34.6	72.0
Average corrected to increased population, . . . . .	..	..	80.00
Deaths of persons above 90, . . . . .	..	..	..

#### Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
15	1	5	4	0	0	0	1	0

#### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	29.873	Highest point of Thermometer, . . . . .	67°
Highest point of Barometer, . . . . .	30.144	Lowest point of Thermometer, . . . . .	32°
Lowest point of Barometer, . . . . .	29.574	General direction of Wind, . . . . .	N.E. & N.W.
Mean Temperature, . . . . .	46°.06	Am't of Rain (in inches) melted snow . . . . .	0.532

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 585.

	BAROMETER.					THERMOMETER.			SNOW & RAIN.			Mean Amount of Cloud. 0 to 10.
	7 A.M.	2 P.M.	9 P.M.	Mean Height.	Highest Point.	7 AM	2 PM	9 PM	Mean Height.	Time 15 minutes.	Meas. sure.	
Monday, April 22,	29.10	29.19	29.28			64	75	66				
Tuesday, " 23,	29.26	29.19	29.36			62	63	48				
Wednesday, " 24,	29.43	29.44	29.46			50	58	47				
Thursday, " 25,	29.44	29.37	29.25			48	63	58				
Friday, " 26,	29.20	29.10	29.01			65	72	71				
Saturday, " 27,	29.14	29.14	29.10			50	60	48				
Sunday, " 28,	29.16	29.06	29.06	29.22	29.46	52	67	62	50.50	4 hours.	1.20	6

BOOKS RECEIVED.—Another Letter to a Young Physician. By James Jackson, M.D., Boston.—Our Alma Mater Fifty Years Ago. An Oration delivered before the Alumni Association of the College of Physicians and Surgeons, Medical Department of Columbia College, New York, March 14, 1861. By Thomas W. Blatchford, A.M., M.D.

DEATHS IN BOSTON for the week ending Saturday noon, May 4th, 64. Males, 35—Females, 29.—Accident, 3—abscess, 1—inflammation of the bowels, 1—inflammation of the brain, 1—carcinoma, 1—consumption, 15—convulsions, 1—croup, 1—debility, 3—dropsy, 1—dropsy of the brain, 3—drowned, 2—epilepsy, 1—scarlet fever, 5—typhoid fever, 1—gastritis, 1—disease of the heart, 2—infantile disease, 2—congestion of the lungs, 1—inflammation of the lungs, 4—marasmus, 3—peritonitis, 1—pleurisy, 1—puerperal disease, 1—scrofula, 1—suicide, 1—syphilis, 1—unknown, 4.

Under 5 years of age, 28—between 5 and 20 years, 11—between 20 and 40 years, 13—between 40 and 60 years, 10—above 60 years, 2. Born in the United States, 47—Ireland, 9—other places, 8.



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THE CYSTICERCI OF THE TÆNIA.

BY E. KOEBERLE.

[Translated for the Boston Medical and Surgical Journal by HALL CURTIS, M.D., Boston.]

*The Cysticerci of the Cestoid Helminths.*—The cysticerci of the tænia, formerly described by the name of hydatids, but now arranged in a special group, in the order of the cystic or vesicular worms, are merely a form of evolution of the cestodean helminths or tape-worms.

The cestoid helminths reach a state of perfection by a successive alternate generation, and by various changes. At maturity they consist of a cephalic portion (scolex), and a body formed by a series of articulations (keetos, *anneau*), each of which constitutes a distinct individual, androgynous, provided with an ovary, with a male generative apparatus, which becomes atrophied in the maturing segments, and with one or two egg-excreting ducts. These articulations form a chain or colony of individuals of varying length, which are in a state of greater maturity the more distant they are from the head—their form is variable, and the tænia represents one of the types.

The embryos of the cestoid helminths are agamous—they do not arrive at complete development, at the condition of a strobilus or tape-worm, pro-glottic and provided with sexual organs completely developed, except by remaining free in the intestinal canal of a vertebrate; when these embryos penetrate and lose themselves in the tissues in which they lodge, they provoke a local inflammatory irritation accompanied by a plastic exudation. This exudation changes to an envelope of fibrous tissue of variable thickness (fibrous cyst or capsule) in which they remain enclosed as cysticerci.

The cysticerci of tæniæ have a tænia head supported by a neck of varying length, enabling them to retract and to invaginate themselves in the terminal extremity of the body (bladder or

caudal vesicle), which is distended by a clear, more or less abundant liquid, at times enclosing certain whitish flakes formed by amorphous detritus. In this stage they present themselves in the form of a vesicle of larger or smaller dimensions, at times rounded, at others elongated and pyriform, ellipsoid and flattened, or transversely prolonged, and occasionally irregular, owing to the place in which they are lodged. At a point corresponding to a small external opening of its surface (orifice of invagination) often difficult to perceive, this vesicle embraces a little body more or less hard and opaque, formed by the cephalic extremity invaginated and drawn back upon itself. At the extremity opposite the orifice of invagination may be observed a slight projection, somewhat depressed (depression or terminal cicatricule). This part disappears and becomes inappreciable when the caudal vesicle is very distended.\*

The encysted cysticerci remain agamous. They present transverse corrugations, but they never are found in segments nor as proglottis with developed sexual organs. The inner surface of the wall of the body is covered by a layer of corpuscles, improperly called calcareous corpuscles, the most of which are germs of embryos or rudimentary ovules, generally abortive and incrustated with calcareous salts.

The cysticerci, like the strobili, are unprovided with a buccal orifice and digestive organs; they are nourished by imbibition; a few species only are provided with four longitudinal ducts which commence near the rostellum and terminate indistinctly beyond the suckers. These ducts probably unite, forming the two which run along the lateral portions of the strobilus, as in the *T. solium* for example. Their growth is very gradual, being resisted by the fibrous envelope with its close meshes which encloses them, and offers more or less resistance to the endosmotic imbibition—they rarely attain the size of a pigeon's egg. The cysticercus of the *T. cœnura* and *T. echinococca* are the two exceptions—the latter, especially at times, is enormously developed. They are gradually incrustated by salts, perish and become mummified as a calcareous mass, in which their tenacula are found, and which is contained in the fibrous cyst, though never forming any adhesion with it.

*The Cysticerci of Tænia in different animals.*—These have been found in nearly all the organs of mammals. In certain animals they are very common, and may be considered almost as normal, causing no trouble. Cats, when very fat, contain them almost without exception in the peritoneal cavity. They are also very commonly found in the rabbit, hare, deer, ox, and sheep. In the last, they are the cause of the so-called calcareous phthisis or pommelière, the watery cachexia, pourriture, gangrene of the lani-

\* It is easy to follow in the cysticercus of the *tænia serrata*, which is very common in the peritoneal cavity of the rabbit, the changes that age causes in the caudal vesicle, the orifice of invagination and the terminal cicatricule.



gerous animals, and hydatids. Swine at times are infected by them to such an extent, that numerous tumors are formed in the flesh, known as the disease called *ladioisie*, *morbus glandosus*, *affectio finnarum*, formerly attributed to a venereal taint, but whose real nature, suspected by Otto Fabricius, in 1782, was recognized and demonstrated by Goëze.\*

The cysticerci in animals are generally found in the liver, the peritoneum, the lungs, cellular tissue, and elsewhere.

The cysticerci of the *tænia* found in the mammals belong to different species. A few specially and almost exclusively inhabit a particular vertebrate; others are common to many mammifera. The *C. echinococcus* is found most frequently in man and in the domestic animals; the *C. cellulosa* or *solium* in the dog, the bear, the roe-buck, the rat, monkey, and especially in the pig and in man; *C. cœnurus* in lambs, calves, and other ruminants; *C. tenuicollis* in most ruminants and domestic animals, in the squirrel, and also in man; *C. crassicollis* or *fasciolaris* in the mouse, bat, rat and meadow mouse; *C. serratus* or *pisiformis* in the rabbit and hare; *C. crassiceps* or *longicollis* in the meadow mouse; *C. fistularis* in the horse; *C. turbinatus* and *C. melanocephalus* in man. Certain kinds have been rarely met, badly described, and perhaps relate to the preceding. Such are the *C. crispus*, *C. sphærocephalus*, *C. canis*, *C. elongatus*, *C. cordatus*, *C. putorii*, *C. talpæ*, *C. leporis variabilis*, *C. delphini*, &c. In the present state of our information, an accurate classification is not possible.

*Cysticerci of Tænia in man.*—These are rarely observed. Those of the *T. echinococca* are the most frequent. The cysticerci of other kinds of *tænia* or of *tæniæ* as yet unknown, are very rare. It appears that more than a sixth of the natives of Iceland are affected by hydatids of the liver (*livrarveiki*), which cause great ravage, and, according to Von Siebold, should be the cysticerci of *T. serrata* (?). Schleisner has drawn attention to this disease of the Icelanders, which Eschricht† considers, judging from the pieces sent by Thorstenson, as caused generally by the cysticerci of *T. echinococca*, *acephalocysts*.

According to Wunderlich,‡ the cases of *echinococci* of the liver in the environs of Dresden almost equal in number the cases of *tænia*.

*Observations of Authors.*§—Previous to the 19th century, in various treatises and reviews, many instances are noted of other species of cysticerci, besides those of the *T. echinococca*, in man; these observations, however, are not sufficiently lucid. In later researches, simple serous cyst formations, and other productions by

\* Goëze, *Neueste Entdeckungen*, dass die Finnen in Schweinefleisch keine Drüsenkrankheit, sondern wahre Blasenwürmer sind, Halle, 1784.

† Küchenmeister's *Helminth.*, not. 1856, über die Bildung der *Echinococcen*.

‡ Wunderlich, *Handb. der Pathol. und Therap.*, Bd. III., Abt. 3, p. 339.

§ All these observations, excepting a very few, are taken directly from authentic sources, and given here summarily, though the important and practical parts are fully treated.

no means parasitic, have been confounded with them. Again, on the contrary, they have been considered as serous cysts, and at times also described as echinococci.

Reliable cases of cysticerci in man have been found by Warthon,\* Panaroli,† Morgagni,‡ and Wepfer;§ these observations are not complete.

Goëze¶ apparently was the first to notice the *C. cellulosa* (?) in man. When examining certain hydatids sent him by Meckel, he recognized distinctly the crown of tenacula, and considered them as small vesicular worms analogous to the vesicles that are found in swine affected with morbus glandosus. A complete examination was impossible, owing to the prolonged maceration in alcohol.

Werner\*\* first recognized and gave an elaborate description of a *T. hydatigena* *eremita*, allied, as he judged, to the *T. hydatigena* (*C. cellulosa*) of swine, which evidently bears a relation to a species often observed, the *C. turbinatus*. The interesting observations of Werner were completed and criticized by Fischner.

Werner observed many hundreds of these parasites in making an autopsy of a soldier, forty years of age, who drowned himself, and whose body remained during two weeks in ice-cold water. This soldier for many years was subject to melancholy, and frequently complained of lassitude and heaviness of his limbs. The parasites were lodged in the muscles, which nearly all were crammed with them. The liver, lung, and probably the brain, were not examined. They were not found in the fatty cellular tissue, which was quite abundant. No well marked inflammation of the neighboring tissues was observed.

The parasites were enclosed in a fibrous capsule (*vesicula vaginalis externa*) of a reddish color, oblong, from 0<sup>m</sup>.007 to 0<sup>m</sup>.028 in length, bulging at the middle portion, and adherent to the neighboring parts by vascular and fibrous prolongations, in a manner that made it impossible to detach them except by force or the scalpel. In certain places many were found united or coupled by their extremities. The worm occupied the major part of this capsule, in which, free from any adhesion, it swam in a little mucus, somewhat thick and troubled, that Werner considered as formed by the excrement or seminal matter. The worm, extracted from its cyst and placed in tepid water, soon thrust out its head and a part of its neck from a transparent vesicle (caudal vesicle) common to all the *T. hydatigena*, and which terminated transversely by the two obtuse elongations; that is to say, the form of the fibrous capsule was reproduced. The head and neck,

\* Bonetus, Sepulchretum, Genevæ, 1679, p. 1541.

† Panaroli, Introlog. sur Medic. Observ., Pent I., Obs. XVII., Hanoviae, 1654.

‡ Morgagni, De Sed. et Caus. Morb. Venetiis, 1761, Epist. 21, § 4.

§ Eph. N. C. dec. 11, An. ix., 1691, p. 440.

¶ Goëze, Neuste Entdeckungen, &c., Halle, 1784.

\*\* Werner, Verm. intest. continuatio II. p. 7. Leipsig, 1786.



formed by more than twenty articulations, passed out through a small linear depression (*incisio vel foreola*) from a vaginal capsule (*capsa vaginalis*), shaped like a lentil, coriaceous, thick, cartilaginous, and united by its lateral portion to the caudal vesicle. The head of the parasite was formed by four papillæ (*ventouses*), crowned by a double row of vesicles (*vesiculæ sugentes*) and by a double row of small vesicles terminating in points, exactly similar to those (*tenacula*) of the *T. cucurbita* of man. In these Fischer was unable to find the tenacula. Moreover, Fischer was not able to perceive those of the *C. cellulosa* of swine, which were plainly seen by Goëze. These organs in all amount to thirty-two in number. Beyond the head, the neck was traversed by a black line, the prolongation of the caudal vesicle. The parasites apparently were alive, since Werner and Fischer affirm that when in tepid water they thrust out their heads, not only by a slight compression, but also spontaneously. When water mixed with alcohol or salt was added to the original tepid water, they drew their heads rapidly back. Fischer pretends to have noticed these facts during three weeks, although the subject was putrefying, and the parasites had been exposed several times to a temperature below 0.

W. and F. supposed these parasites formed a peculiar species, distinct from the other *tæniæ hydatigenæ* (*cysticerci* of *tenia*), and different from the *C. cellulosa* of the pig. They based their judgment on the existence of a *capsa vaginalis*, which they considered a special organ, though it is merely the cephalic extremity invaginated in the caudal vesicle; on the difference in the form and size of the last; on the difference in the number of the *tenacula*.

According to Rudolphi,\* in the autopsies at Berlin, a considerable number of *C. cellulosa* were found; on an average, one subject in fifty contained them. They were generally found in the gluteal muscles, the psoas, the extensors of the thigh, and also, though more rarely, in the brain. Once Rudolphi dissected a woman, quite stout and fat, whose muscles contained a very large quantity of these parasites. The columnæ carneæ of the heart furnished three; the brain was stuffed with them; they were found in the corpora striata, in the medulla oblongata, between the convolutions, and in the medullary substance of the brain. Rudolphi was never enabled to determine the symptoms of *cysticerci* during life.

Himly,† Loschge,‡ Flormann,§ Laennec,|| Dupuytren,¶ Mascagni,\*\* Greve,†† have observed the *C. cellulosa* in the muscles and in the cellular tissue.

\* Rudolphi, Entozoor, Synopsis, p. 546. Berlin, 1819.

† Hufeland's Journal, t. xxix., 1809, p. 116.

‡ Steinbuch, Comment. de tænia hydat. anom. Erlangen, 1802.

§ Rudolphi, Entozoor, Synopsis, Berlin, 1819, p. 620.

|| Mémoires de la Société de Médecine, an. xii.

¶ Dupuytren, Leçons Orales, t. iii., p. 367.

\*\* Brera, Lezioni Med., Pratt., &c., Crema, 1802, p. 153.

†† Greve, Erfahr. und Beobacht. über die Krankh. der Hausthiere, Oldenburg, 1818, c. xvii.

Gerlach,\* Wyman,† Raikem,‡ have found many cysticerci in the muscles.§

Other cases in which the cysticerci were few and of no special interest, have been observed by Follin and Davaine,|| Beraud,¶ Virchow.\*\*

Ude†† described a tumor of the size of a pigeon's egg, situated above the sternum of a man. An incision gave issue to pus, and a cysticercus the size of a small nut, provided with thirty-two tenacula. Hoffman‡‡ found in an abscess of the deltoid of a girl, 18 years old, a cysticercus considered by Wedl a *C. cellulosa*, invaginated in the caudal extremity, in the form of a small cylindrical mass, nine millimetres long by one broad, containing the head of a *tænia* furnished with two rows of tenacula.

Stich§§ has reported six cases of cysticerci observed in the muscle, &c. In one of these, in which about three hundred tumors formed by cysticerci in the external parts of the body were counted, Romberg thought the attacks of epilepsy to which the patient had been subject could be referred to the presence of these parasites in the brain. This man, whose health had formerly been excellent, was seized by sudden intense epileptiform convulsions, at the same time that a large quantity of cysticerci appeared in the muscles and the subcutaneous tissues. Stich thinks the contractions of the caudal vesicle can explain the various states of irritation of the nervous system, when the cysticerci are situated in the brain (?).

Gervais and Demarquay||| observed in a woman, 60 years old, whose body presented numerous purulent collections, cysticerci lodged in great numbers in the muscles of the economy. One was also found in the lung. Gervais considered them *C. cellulosa*. Each was imprisoned in a fibrous capsule. The caudal vesicle, ellipsoid or ovular in form, was fifteen to twenty millimetres long by five to six broad. The tubercle formed by the invagination of the head and neck, was the size of a grain of hemp seed. The head, very small, was blackish, especially in the upper half, where very small grains of pigment were seen about the crown of tenacula, which, thirty-two in number, were arranged in two close rows. The suckers were four in number. The surface of the hydatid was finely granular, and the orifice of entrance of the *tænioid* part of the worm appeared as a small umbilicus, difficult

\* *Gazette des Hôpitaux*, 1844, p. 596.

† Jackson, a Descriptive Catalogue of the Anatomical Museum of the Boston Society for Medical Improvement, 1847, No. 904.

‡ Bulletin de l'Académie Royale de Médecine de Belgique, 1853, p. 199.

§ Rainey considered he had met with the *C. cellulosa* in the primitive fasciculi of muscular tissue, in the form of small bodies elongated in spindle shape. *Philos. Trans.*, 1857, p. 3. On the Structure and Development of the *C. cellulosa* as found in the Muscles of the Pig.

|| *Comptes Rendus de la Société de Biologie*, 1852, t. iv., p. 19.

¶ *Gazette des Hôpitaux*, 1857, p. 475.

\*\* *Gazette Médicale*, Paris, 1858, p. 443.

†† Nordamerik. Monatsbericht für Natur und Heilkunde. Philadelphia, January, 1852, p. 10.

‡‡ Wedl. *Grundzüge der Pathol. Histol.* Wien, 1854, p. 763.

§§ Canstatt's Jahresb., 1855, t. iv., p. 339. Ueber das Finnisn lebender Menschen, in *Ann des Charité, Krankenh zu Berlin*, Ann v., H. 1., p. 154.

||| *Journal de l'Institut*, 1845, 1re sect., p. 16.



to distinguish. The cysticerci which have been represented\* have a caudal vesicle, relatively largely developed, and the orifice of invagination is always situated on the lateral portion, and not at one of the extremities of the great axis of the ellipse.

Sichel† has mentioned five cases of cysticerci lodged under the conjunctiva.

Höering‡ has made a similar observation; as also Baum,§ Estlin,|| Cunier,¶ Cauton.\*\*

The parasite formed a small tumor, of the size of a pea, below the conjunctiva, which was more or less inflamed at this spot. In the most of these observations, nearly all of which were of children from six to seven years of age, a cure was obtained by incision or by the extirpation of the cyst. In one case of Sichel,†† the cysticercus was expelled spontaneously, from the rupture of a small abscess.

Soemmering‡‡ observed a *C. cellulosa* in the anterior chamber of the eye in a girl 18 years old. The parasite was perceived after a violent ophthalmia, which gradually disappeared; in form, a small ball, quite diaphanous, with a whitish and opaque centre. At times, the folded part of the neck, terminated by the head, was seen to protrude, either spontaneously or by a slight rubbing on the eye. It did not interfere with vision, except when it placed itself before the pupil; in the space of seven months its size was doubled. The young girl was operated on by Schott, who drew the worm, still living, of the size of a pea, from her eye. Roser§§ extracted, through an incised cornea, a cysticercus lodged in the anterior chamber of the right eye of a man 31 years old. The parasite, of the size of a small pea, had the appearance of a transparent vesicle, with a whitish centre. It only troubled vision when it came before the pupil. At first, there was no appearance of any inflammation of the eye, but after two months an internal ophthalmia became imminent, which decided Roser to operate. In the endeavor to extract the parasite by means of a pair of small forceps, the caudal vesicle was torn; the nucleus, which it contained on microscopical examination, exhibited the suckers and crown of tenacula, similar to those of the tænia. The incision of the cornea healed perfectly, and the sight was not afterwards troubled.

Problematical observations of cysticerci of the eye have been made by Logan,||| Alessi,¶¶ Cauton\*\*\* and others. Graefe††† ob-

\* Gervais et van Beneden, Zool. Medic., t. ii., p. 251.

† Révue Chirurgicale. Mai, 1854, p. 146.

‡ Gazette Médicale de Paris, 1839, p. 636.

§ Ammon's Monatsschrift, 1838, Bd. i., p. 67.

|| Mackenzie, Traité Prat. des Malad. des Yeux, Paris, 1843.

¶ Annales d'Oculistique, 1842, t. vi., p. 271.

\*\* Archives Générales de Médecine, 4 série, t. xix., 1849, p. 218.

†† Sichel, Iconographie Ophthalmologique, Paris, 1859, obs. cclxix, p. 705.

‡‡ Isis oder Encyclop. Zeitung von Oken, Jena, 1830, p. 707.

§§ Correspondenz-Blatt zur Förderung der Wissenschaftlichen Heilkunde, Marburg, 1860, p. 656.

||| Archives Générales de Médecine, 2e série, 1833, t. i., p. 573.

¶¶ Bulletin de l'Académie Royale de Médecine de Bruxelles, 1853, t. xii., p. 197.

\*\*\* Loc. cit.

††† De La Calle. De l'Ophthalmoscope. Thésis de Paris, 1856. Archiv. für Ophthalm. von Arlt, Donders und Graefe, Berlin, t. i. et ii. passim.

served a dozen cases of cysticerci in the depth of the eye. A good number of these observations are doubtful.

Leudet\* examined the heart of a man 52 years old, who died of endocarditis. The walls of the heart contained eleven cysticerci. No cerebral symptoms had been observed. The other organs were not examined. The description of the cysticerci, which were very small, was very incomplete.

Rudolphi,† Andral,‡ Ferrall,§ Morgagni,|| have made analogous observations of cysticerci in the walls of the heart.

[To be continued.]

## DR. WARE'S LECTURES ON GENERAL THERAPEUTICS.

### LECTURE V.—(Concluded.)

IN carrying out the details of the general plan upon which the treatment of acute and chronic diseases is to be managed, a great variety of conditions present themselves, which may be peculiar to individual diseases or may exist in any disease. We are next, then, to consider the method of procedure under these conditions, referring to particular diseases only so far as may be necessary to illustrate this method.

That the alimentary canal should be well evacuated at the beginning of any considerable disease, was stated at the beginning of this lecture. A good many questions arise, however, in connection with this point, which require further remark, particularly the connection which the matters evacuated may have had with the causation of the disease. When undigested food, or food become acid, copious fæces, especially of bad appearance, bile and secretions are discharged, we are apt to infer that these have brought on the attack, and particularly if their evacuation be followed by relief. This may be so, or it may not. When a patient has recently taken food, and when, either spontaneously or by the operation of medicine, he throws it up undigested or sour, or passes it in this state from the bowels, it is a natural inference that the food has caused the attack, especially when it has been erroneous either in quality or quantity. But this inference will often be a mistaken one. It may be that the indigestion has been the consequence of disease and not its cause.

When the food has been really the sole cause of the attack, its complete evacuation is usually followed by entire relief, whether effected spontaneously or by medicine.

But the evacuation of the offending food, either by vomiting or purging, is not always complete, and portions may remain behind,

\* Gazette Medicale, Paris, 1852, p. 696.

† Loc. cit.

‡ Andral, Précis d'Anatomie Pathologique, Paris, 1829, t. ii., p. 332.

§ Journ. of Med. Soc., Dublin, July, 1839.

|| Loc. cit.



keeping up a continued state of irritation in the stomach, or even the whole of the alimentary canal, indicated by nausea, retching, epigastric distress, ineffectual attempts to vomit and imperfect action of the bowels. Where this state exists it is not well to persevere in active measures to procure evacuations, but to leave the organs at rest, administering only mild, soothing and liquid nourishment, and a few grains of carbonate of soda in solution, or a small quantity of lime water, every few hours. Sometimes very soon, or at farthest after a few days, the disturbance will subside, the organs rally and relieve themselves of their contents; or if not, may be made to do so by a mild evacuant, such as rhubarb or castor oil.

Where food has not been the whole cause, its evacuation, though giving much immediate relief to the sensations of the patient, does not relieve the disease, though removing one cause of its aggravation and continuance. Both of these contingencies are well illustrated by what happens in common cholera morbus. An attack of this disease may take place simply from irritating food at any period of the year, but especially in the summer, when the organs have become irritable from the influence of heat. In such cases, promoting effectual vomiting by warm diluents, or producing it by an emetic of ipecac, is generally sufficient. If the irritation and distress is great, the addition of ten or fifteen drops of laudanum and a teaspoonful of cinnamon to the emetic will render its operation easier and more effectual, by preventing that unequal and irregular action of the stomach and bowels which prevents in an irritable organ a complete effectual effort. But there is another class of cases, occurring almost exclusively after a period of very hot weather, in which the attack is of a different kind and its cause lies deeper. In these, food does not cause the attack; the attack finds the food in the stomach and its digestion is arrested. Its presence increases the irritation of the organ, for its digestion being arrested and the condition of the stomach changed, it becomes a foreign substance. Still its evacuation does not give any relief, and violent symptoms follow, such as epigastric distress, with severe ineffectual retchings and cramps. A very early emetic, with an opiate, largely diluted, will sometimes succeed here, but more commonly the best method is to quiet all activity by very full successive doses of laudanum—from 80 to 100 drops—each dose to be repeated at once if rejected, and then leave the patient for a time without further medication. There is a series of cases lying between these two extremes. A man in health before going to bed eats largely of some unusual and improper food, and is waked up in the night by violent vomiting and purging. Another takes only his ordinary food, but is also attacked with equal or greater violence. The first throws up his food in an undigested state, and in twenty-four hours is well. The second also throws up his food in the same condition, but

without the same relief. He has pain, nausea and epigastric distress, great prostration, painful spasms in the muscles of the abdomen and limbs, violent retchings with discharge of acid secretions and of green and yellow bile, perhaps copious discharges of similar matters from the bowels, he is reduced to a state of great exhaustion, becomes cold and almost pulseless—he may even die, though this is uncommon. At any rate, after the urgent symptoms have ceased, he continues ill for many days, and slowly recovers.

No doubt improper food alone will sometimes produce continued disease; but more commonly when disease is apparently produced by food, as indicated by its expulsion in an undigested or chemically altered state, there has existed a preceding predisposition which the food simply calls into activity. There are some persons, indeed, with a stomach so weak and irritable that they may be regarded as always in such a state of predisposition. By great care they may keep themselves indefinitely in a comfortable state of health, but upon the occasion of some error of diet, or from any cause of irritation or exhaustion, they will undergo an attack, not relieved by evacuation, but following a course more or less like those just described.

These remarks are intended to illustrate conditions of the stomach which may arise in any disease and in any period of disease—in which some offending load is present which may be the sole cause of the symptoms from which the patient suffers, or which may be only the consequence of a condition under which the stomach has previously labored. The general principle of treatment will be always essentially the same. In either case, the removal of the load is to be desired and attempted. If the attempt is successful, in the one case the whole trouble is removed, in the other an impediment to its removal by the efforts of Nature is taken away. If unsuccessful, the organ is not to be annoyed by repeated efforts, but either to be left to rest, or its irritation soothed by palliating measures.

Much caution is to be used in judging of the state of the patient as connected with the presence of undigested food. Thus periodic attacks—such as epilepsy and sick headache—are apt to be attributed to this cause, because, either spontaneously or by an emetic, articles last eaten are rejected, and often in what is regarded as an unnatural state. Now even the contents of a stomach engaged in the act of healthy digestion are often acid, and have a disagreeable odor and appearance; so that if a fit of epilepsy comes on during this act, and an emetic be given, it is apt to be inferred that the food has been the cause of the fit, and that it was of an improper kind. This seems to the observer to be confirmed by the fact that relief follows the act of vomiting, and as a consequence the articles taken are in future forbidden. Hence, a patient is sometimes unnecessarily restricted as to his diet, from the delusive idea that indigestion is the whole cause of his malady,



while, in fact, the indigestion is caused by the approach of the fit. A similar remark is true of sick headache. No doubt occasional attacks of it will be brought on by great errors as to diet, as is also the case with attacks of epileptic convulsions. But in both these maladies there is in most patients a constitutional tendency to them, which will bring them on at certain intervals whatever care is taken. A reasonable restriction as to food will prolong this interval, but the return of the attacks is a species of necessity and cannot be wholly prevented.

There are other conditions of the digestive organs, occurring either as insulated attacks or at the beginning or in the course of other diseases, which require notice, and they often present questions of treatment difficult to determine. Thus, severe and painful spasm may seize the stomach from the presence of undigested food, or from food of an improper quality or quantity. This spasmodic state may be regarded as the result of an abortive or imperfect attempt to vomit—just as cramp will sometimes seize the calf of the leg, or some other muscle, as a consequence of an attempted voluntary motion, instead of the normal voluntary contraction. In this state of things there are two modes of treatment, either of which may be successful or either of them fail, so that it is not always easy to decide between them; either by an emetic of ipecac, which shall substitute the normal effort to vomit for the spasmodic condition which seems, as it were, to grasp the offending contents in a close embrace; or by an opiate, which quells the spasm, and thus brings the stomach into a condition that enables it to empty itself in the natural way, or to suffer an emetic or cathartic to do this without opposition. When the spasm and pain is moderate, intermittent with long intervals, and accompanied by nausea and efforts to vomit, especially if we know that the food has been recently taken, in large quantity and very indigestible—an emetic, guarded by an opiate and some aromatic, may be safely employed.\* But if the spasm be fixed and violent, and the food has been taken some time before, so as to be partially digested and be passing into the intestines before the attack begins, a full opiate, repeated immediately if rejected, and at intervals, till the spasm is relieved, seems to be the proper method.

An analogous state of things occurs in the large intestine, giving rise to the different forms and degrees of colic. Colic probably originates in an effort to carry forward and discharge something from the bowels—either fæces, food or flatus—which is ineffectual and passes into spasm. Here, too, relief may be obtained in two ways, either by a cathartic, which substitutes the normal peristaltic action for the morbid condition, or by an opiate, which quiets that condition, leaving the offending matters, after a period of rest, to be evacuated naturally or by a cathartic. When the at-

\* R. Inf. menth. pip. vel cinnam., two ounces; pulv. ipecac., two scruples; zinc. sulph., one scruple; tinct. opii, thirty drops. Mix. One half to be taken at once and repeated.

tack is moderate, the cathartic practice may be employed, but in a large proportion of cases the opiate is better, or at any rate easier to the patient. Attacks of this description are very frequently met with, varying in degree from those which are well marked and formidable, to those so mild as to be simply very uncomfortable. The treatment will, of course, vary with the intensity. A dose of castor oil, or of some of the aromatic and stimulating purgatives, such as tincture of aloes and myrrh, or compound tincture of senna, or an operative enema, aided by external applications, are often quite sufficient, whilst at other times large doses of laudanum or other opiates become indispensable. It is acting on the safe side to prefer the latter method to the former. It certainly sometimes happens that the attempt to remove the trouble by cathartics converts a moderate and simple case into a severe and complicated one. The stomach is nauseated by the medicines administered and rejects them, or the whole canal is thrown, by the efforts excited, into a state of high irritation, and a train of distressing and sometimes alarming symptoms follows. When dependence is placed upon opiates, it is better to give at first a little more than is absolutely necessary, than a little less. An under dose may require to be repeated, and thus in the end a larger quantity be taken than if a full dose be given at once.

There are some persons whose organs of digestion are extremely susceptible to all medicines, in whom the attempt to evacuate them at any period of disease, and sometimes even in health, is productive of great irritation, indicated by nausea, vomiting, colicky pains, ineffectual retchings, and great restlessness and prostration. By some practitioners, the evacuation of the bowels is regarded of such indispensable necessity, that the attempt is repeated and persisted in, as I think, sometimes to the manifest injury, certainly to the great annoyance of the patient. It is seldom so essential a point as to render this advisable. Such a condition of the canal necessarily lessens the ability to contend with whatever disease may be present, and is a greater evil than the presence in it of the substances it is attempted to remove.

In such constitutions, when we are acquainted with them, it is better to trust the case wholly to the mildest palliatives, and soothing external applications, emptying the bowels only by enemata. By this plan the disease may run through its natural course without evoking that tendency to gastric and intestinal irritation which is peculiar to the patient. Where the constitution is unknown, and this state of things is brought on by the ordinary course of treatment, as soon as it manifests itself all active interference should be suspended, and the disturbance that has been created may then spontaneously subside. The subsidence will be sometimes aided by articles grateful to the taste and gently stimulating to the stomach, such as some of the essential oils dissolved in alcohol—the oils of wormwood, of checkerberry, of cinnamon, of peppermint, &c. Small



quantities of soda combined with these, and effervescing mixtures in small and frequently-repeated doses, as of soda and lemon juice, will often be of service, as will also small quantities of brandy slightly diluted. The effect of opiates is more uncertain. A grain of solid opium or more is occasionally successful, or a frequent repetition of very small quantities of morphia, black drop or the liquid extracts. All attempts at evacuating the canal, except by enemata, should be avoided; irritating external applications are at best useless, and those only of a soothing kind will be of any avail, such as warm poultices to the abdomen and fomentations of water, hops, chamomile, &c.

The conditions here referred to as objects of attention are not in themselves the disease, but are accidents which may occur in any disease. Their occurrence, however, is an event of importance in the progress of the case in which it takes place, and may seriously interfere with its favorable course. The violence of this secondary affection is, however, by no means any measure of the severity of the primary, but rather of a peculiarity in the patient himself. It may occur in even so slight a disease as a common cold, and, in the same person, is less likely to occur in a very grave attack than in one of a moderate character. The same thing is not unfrequently observed as to other constitutional peculiarities. They continue to exhibit themselves in cases of slight disease, but a very severe one seems, as it were, to reduce all constitutions to nearly the same level, and to over-ride tendencies which manifest themselves on ordinary occasions. Thus, it is a matter of common observation that nervous and hysterical patients, who are abundantly troubled with their peculiar symptoms during trifling ailments, and even in their ordinary health, become tranquil, quiet and entirely free from them, in aggravated and especially in mortal diseases.

Somewhat related by certain affinities to the cases which have been considered, is another condition that may occur in almost any period of disease, in connection with the attempt to evacuate the alimentary canal; I mean what is popularly called a "stoppage of the bowels." This is a prominent characteristic of an attack of ileus, and is then at once accompanied by other characteristic symptoms, but I refer more particularly here to its occurrence where there has been no preceding indication of any local difficulty in the bowels themselves. In a case where these organs have been acting very well, there is a sudden failure in the operation of a purgative; a more active one is administered, which is still resisted, and we find that the canal is closed. Perseverance in the attempt to open it only aggravates the difficulty and brings on a state of general irritation, such as has been above described. Very powerful cathartics will sometimes force their way through and give relief, but not generally; and the case may assume all the formidable characteristics of ileus and prove

fatal. The local state of the parts concerned cannot always be determined. In those which terminate in death, there is usually found some of those mechanical impediments which are enumerated as the causes of ileus, such as intussusception, diverticula, internal hernia, stricture, &c. But in those where the bowels finally give way, we can only conjecture the state of things. It may be simple torpidity, inflammation, or spasm of some part of the tract of the intestines.

The essential object of treatment was formerly judged to be the procuring of discharges. Because relief always followed the opening of the bowels, it was inferred that this was the *sine qua non*, and the thing to be accomplished at all events. But as it was found that in fatal cases a state of disease was revealed which no purgatives could have removed, it was quite as reasonable to judge that the "stoppage" in those recovering was dependent upon an entirely different condition of parts; that this condition gave way and then discharges took place, and that seemed to be the cause, which was in fact only the consequence. A practice in conformity with this view is now generally regarded as most judicious. Wherever there is a decided closure of the intestines, we are to cease active interference so far as this particular object is concerned. Where there is no pain or other indication of actual disease, we are simply to stand aloof, and by and by, in a vast proportion of cases, the difficulty is spontaneously resolved. Where there is pain, tormina, swelling and the other symptoms of mechanical obstruction, and ineffectual efforts on the part of the intestine, all active symptoms are to be quelled by opium, and the parts are to be kept under its full influence till the patient dies or the bowels act of their own accord or by enemata. This course not only is attended by far less suffering in cases necessarily mortal, but by the more frequent recovery of cases which, under the aggressive form of treatment, seem likely to have come to the same termination.

I would remark, with regard to all these different states of the canal which have been spoken of, that in looking back upon past experience, I am persuaded that their occurrence is far less frequent, the recovery from them far more speedy, and the suffering of the subjects very much less, under the palliative treatment, than under the persevering and active medication which it was formerly judged necessary to adopt.

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IN a fatal case of hydrophobia, recently, at the Hotel Dieu, Paris, the period of incubation was unusually long—the patient having been bitten in the beginning of October, and the peculiar symptoms not manifesting themselves till the 21st of January. Death occurred four days after. A medical journal of Genoa mentions two cases of still longer duration—viz., one of fourteen, the other of five months.



## Bibliographical Notices.

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*What we Eat: an Account of the most Common Adulterations of Food and Drink. With Simple Tests by which many of them may be detected.* By THOMAS H. HOSKINS, M.D. Boston: T. O. H. P. Burnham. 1861. 12mo. Pp. 218.

WE cannot give a better idea of this work than by quoting a portion of the author's preliminary remarks:

"It is generally but vaguely believed, that frauds are constantly and systematically practised among us, by the sophistication of nearly every article of diet; and that not a few of those engaged in these nefarious practices, in the recklessness of an unhallowed lust for gain, do not scruple to make use of the most deleterious and even poisonous substances for such purposes.

"It is a mournful fact that this public uneasiness upon so vital a matter should be well founded, but it *is* a fact; and in this and succeeding chapters it is designed to give it the point and force of a demonstrated certainty; that the public mind may be aroused to the full enormity of such acts, and to the necessity of an effectual remedy. To this end, numerous samples of all the substances which are in most common use as articles of food, have been carefully and repeatedly examined and tested, by means of the appliances known to science, and the results which will be laid before the reader cannot fail to produce conviction."

We think that the text everywhere proves the truth of the author's statements. The first chapter, on the adulteration of bread, shows that "this 19th century" has produced as great rascals as any; for those who systematically adulterate this necessary of life, would very easily adapt themselves to all varieties of crime. After the reader has become acquainted with the dangers to which he is exposed in seeking nutriment absolutely essential to life, we would call his attention particularly to the chapter on confectionary and some other unnecessary articles. It will be seen that "upon the innocent children, the whole toxical battery seems to have been concentrated with Herodian intent."

In regard to the adulteration of liquors, no one has the slightest doubt of the extent to which the practice is carried; but inasmuch as we never saw the person who did not purchase of a thoroughly honest man, and therefore believed that he was swallowing only the pure article, we fear that the chapter may not be regarded as important as some of the others.

Though not so comprehensive as some works of the kind, it should not be considered any the less valuable for general circulation. Its style and contents are such as to make it an entertaining as well as useful book.

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*Sixth Annual Report on the Births, Marriages and Deaths in the City of Providence, for the year 1860.* By EDWIN M. SNOW, M.D., Superintendent of Health and City Registrar. Second Edition. Providence. Knowles, Anthony & Co. 1861. pp. 56.

It appears from this report that the whole number of births in the city of Providence in 1860, was 1648, being 55 more than during the previous year. The months in which the greatest number of births have occurred during the past five years, are May, March, December, July and November. It may be remembered that according to the Registration Reports both of South Carolina and Rhode Island, the greatest fecundity was in November and December.

The number of marriages in 1860 was 620, or 9 more than in 1859.

The whole number of deaths for the year was 1001, an increase of 102, or 11.3 per cent. over the number in 1859—the stillborn not being included. The greatest mortality, as we might expect, was in July and August, and the least in June.

Of the causes of death, we may mention that the mortality from cholera infantum was larger than ever before, being 7.09 per cent. of all known causes. The deaths from consumption were 22.60 per cent. of all known causes; this being a large increase over the mortality in the previous year. Of the 207 who fell victims to this disease, 137 were females. Twenty-five deaths occurred from diphtheria, 14 of whom were males, the largest number of patients, 8, being between 2 and 5. It has been most prevalent during the last three months of the year. The Registrar remarks that this disease is gradually on the increase in the city, although there has as yet been no fatal epidemic.

Pneumonia seems to have been one of the most prolific causes of death; the mortality having been 6.15 per cent. of that from all known causes.

According to the recent census, Providence contains 50,666 inhabitants, being a gain of 9,153, or 22.05 per cent. in ten years.

The report which we have thus briefly noticed, evinces that care and fidelity which mark all the previous results of Dr. Snow's labors.

*A Treatise on Fever, or a Selection from a Course of Lectures on Fever, delivered by* ROBERT D. LYONS, K.C.C., Physician to Jervis st. Hospital, &c. Philadelphia. Blanchard & Lea. 1861. pp. 362.

THE subject of Dr. Lyons's treatise, although one that is in itself by no means new, is, in the present advanced state of medical science, one that demands our attention, from the constant prevalence of the disease in many countries, and from the obscure nature of its causes and pathology. Our author has presented to the public an admirable compendium, comprising a digest of the subject as at present viewed, by the most eminent pathologists of Europe, and no one can fail to gain a clearer idea of the whole class of febrile affections after a faithful perusal of the work before us. We were particularly interested in the first and second chapters, which treat of their general pathology, and we regard his classification, which is especially treated of in the third chapter, as at once simple and comprehensive. He divides them into three great classes—the first called *Primary*, and comprising continued, intermittent and remittent fevers; the second, *Irritative*, including gastric, gastro-intestinal, remittent and hectic fever; and the third, *Eruptive*. The pathology and therapeutics of this formidable class of diseases, he has presented in a clear and succinct manner, giving the result of all the more recent investigations, and has given to the profession a most useful and instructive book.

*A Paper on Diphtheria, read before the New York Academy of Medicine, January, 1861, by* JAMES WYNNE, M.D., Lecturer on Legal Medicine in the Medical Department of the University of the City of N. York, &c. &c. New York. Bailliere Brothers. 1861. pp. 32.

THIS is a brief, well-written treatise on Diphtheria, presenting a remarkably clear statement of the history, symptoms and treatment of this singular disease, and deserving a careful and attentive perusal.



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 THE BOSTON MEDICAL AND SURGICAL JOURNAL.
 

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 BOSTON: THURSDAY, MAY 16, 1861.
 

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WE hasten to correct an impression inadvertently conveyed in our remarks of last week relative to the Medical Commission recently appointed by the Governor. We stated that the use of chloroform for the State troops had been unconditionally forbidden by this body. We have ascertained, upon further inquiry, that we were in error in supposing that the Commission, as at present constituted, had the power to forbid the employment of any remedy that may be sanctioned by the Medical Bureau. Appointed, as has been before stated, as a board of advisers, it is the duty of this Board to make such suggestions to the Governor as they may deem expedient, in relation to all that bears upon the health of the State troops. Farther than this, their duties do not extend. With reference to chloroform, we believe that objections were strongly urged against its use in the State regiments by several prominent members of the Commission, but, so far as we can learn, no official opinion was expressed by the Board itself; which, had it been, must have been simply of an advisory nature.

With regard to the objections themselves, said to have been raised against the employment of chloroform for any and all purposes, we must express our surprise. Leaving out of view the manifest advantages it possesses over ether in being far more portable, and from its non-inflammability, free from the danger to which a highly inflammable and sometimes explosive material is necessarily liable; to say nothing of the remarkable success which attended its employment in the Crimea as an anæsthetic agent, we recognize in chloroform a medicine, whether used internally or externally, whose value is at present so well attested, that military surgeons could ill afford to be without it. Certain it is that it has been supplied to all State medical officers who have desired it, and this under the sanction of the Medical Bureau.

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COFFEE AS A REMEDY FOR WHOOPING COUGH.—In Dr. George D. Gibbs's work on whooping cough, published in London in 1854, he quotes Dr. Jules Guyot as authority for recommending strong coffee as a specific for the cure of this disease. We have tried it in several instances with marked effect. In one case, the patient being a little girl six years of age, there was not a single "whoop" after she began to take it. She took a tablespoonful and a half of very strong coffee, sweetened, but without milk, three times daily. A younger child, in the same family, was well of the disease in three weeks; no other remedy was used in either case. In another instance, in which we have recently tried it, the same happy result followed, the "whooping" symptom being at once arrested, and the complaint coming to a speedy termination. It is difficult to fix the dose definitely, and this may account for the unsatisfactory result in one or two instances we have heard of, in which a small dose was given. Another important consideration which should not be lost sight of, is, that three-quarters, probably, of what is drank for coffee, is made from

nothing but peas or beans. The only sure method is to get the coffee berry itself, and have it burnt and ground under one's own eye. The decoction should then be given as strong as possible, and in a quantity only short of enough to cause the unpleasantly stimulating effects of this beverage. Children take it very readily. The last patient referred to above, was only eighteen months old, and took, once a day, half a cup of coffee thus prepared, without the least noticeable injurious effect. As whooping cough is rather prevalent at the present time, we have thought it worth while to remind our readers of so simple and pleasant a remedy for it.

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NEW OPERATION FOR THE RELIEF OF HERNIA.—Dr. John Niven recommends, in the London *Lancet*, the following operation for the relief of strangulated hernia, which he conceives would be most useful in the case of small and recent protrusions, where there is little chance of adhesions having been formed :—

“Every surgeon must have experienced the difficulty of reducing such herniæ by the taxis, and must also be aware of the exceeding ease with which a force acting from within, such as the peristaltic action of the bowels, effects their return. Many years ago I had occasion to perform the *post-mortem* examination of the body of a female, who died from an unreduced femoral hernia of this character, and was astonished to find that the slightest touch of the finger caused the protruded bowel to slip into its place before I had an opportunity of demonstrating it to the bystanders.

“The operation I propose is this :—An incision is to be made in a vertical direction, about an inch or an inch and a half above the neck of the sack, dividing the skin of the abdomen, and gradually diminishing in extent till the peritoneum is reached. The peritoneum is then to be opened to the extent of admitting a blunt hook, or, what is perhaps better, a fine curved pair of forceps, with which the neck of the protruded intestine is to be grasped, and gently drawn upward, whilst the taxis is to be applied from the outside to assist. The wound is then to be closed with a hare-lip pin or a wire suture.

“Should this proceeding fail from any cause to effect reduction, it is open to the surgeon either to enlarge the wound, so as to admit the finger and to divide the stricture from the inside, or to perform the usual operation.

“The advantages of this operation are the small extent of the incision into the peritoneal cavity, and that in a sound place, and the avoidance of the exposure of the protruded bowel to the fingerings required in the usual method. In fact, the danger would not be greater than that of the operation of paracentesis.

Henry Power, Surg., in the same Journal, recommends the following method of treating strangulated oblique inguinal hernia :—

“On the 14th ult., William W. presented himself amongst the out-patients of the Westminster Hospital. He stated that he was 44 years of age, a soda-water maker by trade, and that he had suffered from hernia for twenty years. He had always worn a truss, and though the bowel occasionally slipped down, he had always been able to replace it by himself. On the day previous to his coming, at five o'clock, P.M., he was pulling down the sash of a window, when the hernia descended with much force in spite of the truss. He immediately went home and attempted to reduce it, but his efforts were fruitless; he therefore readjusted the truss and went to bed. He endured much pain through the night, and got no sleep. In the morning he fell sick and vomited his breakfast.

“On examination, a very tense tumor was found in the right inguinal region. It was about equal in size to a guinea-fowl's egg, and was extremely tender to the touch. I could not ascertain whether the hernia was direct or oblique. He complained of nausea, and of pain radiating over the whole abdomen.

“I placed him on his back, with the knees drawn up, and for five minutes endeavored to reduce the hernia by steady pressure, but no impression whatever



was made upon it. Recollecting the plan which was re-discovered or re-introduced by my friend Mr. Jessop, of Cheltenham, and of which several successful instances are on record, I obtained the assistance of one or two of the students and placed the patient on his head. On again gently compressing the tumor, I had the satisfaction of feeling it quickly recede, and in less than a minute it entirely returned, with an audible gurgle."

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TEA-TABLE TALK.—The following extract from the London *Lancet* will be read with interest, as it controverts the common opinion that the use of tea checks the transformation of the tissues.

"Dr. EDWARD SMITH has related, at a meeting of the Society of Arts, the results of investigations as to the action of tea. It has been stated by Boecker and others that tea has the power of preserving the tissues of the body from waste. The general conclusions of Dr. Smith are, however, that it hastens and facilitates the waste of the body. In every experiment, moderate quantities uniformly and regularly increased the respiratory changes, so that there was an advance of from one fourth to one fifth in the quantity of carbonic acid which was evolved from the lungs; the greatest effects occurring in from forty to fifty minutes, and the whole effect subsiding in from an hour to an hour and a half. When the dose was divided, as twenty-five grains of tea every quarter of an hour for six doses, instead of one hundred and fifty-six grains in one dose, the action was much more uniform and sustained—a point of some interest in regard to the posology of medicines. Dr. Smith states that tea exerts an action in increasing the perspiration by the skin. Therefore he agrees with the Chinese that it is 'of a cooling nature,' and especially if taken with hot water, 'when the perspiration becomes oftentimes very profuse, and the subsequent cooling proportionately rapid.' We are not, however, disposed to admit that a drink which produces profuse perspiration is therefore a cooling drink. All hot fluids will do this, and perspiration is a means of coolness, but certainly far from a test of it. Few people, except perhaps a very refined physiologist, on seeing a man sweating in the sun, or perspiring after a draught of hot fluid, would say, 'See how that man is cooling himself.' And more expeditious means for cooling one's self could certainly be devised than that of inducing profuse perspiration. Ginger, salt, or lemon, Dr. Smith observes, when added to the tea, will counteract its cooling property. In fine, he concluded that the essential effect of tea is to promote all vital actions, and to augment the functional activity of the skin. Hence it increases the assimilation of the food, both of the flesh- and heat-forming kinds, and, with abundance of aliment, it must promote nutrition, whilst, in the absence of sufficient food, it increases the waste of the body.

"Amongst the conclusions which Dr. Smith draws are, that tea should not be taken at breakfast, except there remains unused food from the supper on the previous night, or except the system be usually too full of nutritive material, as in those who dine heartily at a late hour; nor with our principal meals, or those at which we take the greater part of our animal food, for after such meals a dry and hot skin—that is, lessened action of the skin—is a natural effect, and this would be opposed by the tea."

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VIVISECTION.—Earl Cowley had the honor of presenting to the Emperor of France, on Sunday last, a deputation from the Society for the Protection of Animals, of London, when they presented to his Majesty an address from the Society. The deputation was composed of General Sir John Scott Lillie, Mr. Gurney, M.P., Mr. John Curling, and the Rev. Thomas Jackson. The deputation called the attention of his Majesty to the subject of vivisection, which has long occupied the attention of the Paris Society for the Protection of Animals, and of other similar Societies in Europe. The Emperor, without wishing to prejudge the scientific part of the question, assured the deputation that an inquiry should be instituted on the matter.—*Lancet*, April 20.

**ABSINTHE—ITS PROHIBITION IN THE FRENCH ARMY AND NAVY.**—The French government has prohibited the use of absinthe in the army and navy—even to the officers—and it is said an attempt is to be made to prevent its importation into the colonies. Deaths and insanity, the results of its habitual use, are, I am informed by a medical friend of mine, very common in Paris; and that on the tombstones of several of the prominent men in the literary world, whose lights have gone out during the past ten years, might with truth be written, “died of absinthe.” And yet, with all these terrible facts before them, the use of this villainous mixture is daily increasing, and it is by no means improbable that the government, which interferes in matters of much less importance, will find it necessary before long to adopt a “Maine liquor law,” prohibiting the sale of the poisonous compound.—*Paris Correspondent of a New York paper.*

THE number of physicians in the United States is estimated at 40,481.

### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MAY 11th, 1861.

#### DEATHS.

	Males.	Females	Total.
Deaths during the week, . . . . .	33	31	64
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	35.3	35.8	71.1
Average corrected to increased population, . . . . .	..	..	79.3
Deaths of persons above 90, . . . . .	..	..	..

#### Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
15	2	6	2	0	2	1	0	0

#### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	29.826	Highest point of Thermometer, . . . . .	69°
Highest point of Barometer, . . . . .	30.086	Lowest point of Thermometer, . . . . .	43°
Lowest point of Barometer, . . . . .	29.394	General direction of Wind, . . . . .	S.W. & W.
Mean Temperature, . . . . .	48°-64	Am't of Rain (in inches) melted snow . . . . .	0.380

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 585.

	BAROMETER.					THERMOMETER.			SNOW & RAIN.		Mean Amount of Cloud 0 to 10.
	7 A.M.	2 P.M.	9 P.M.	Mean Height.	Lowest Point.	7 A.M.	2 P.M.	9 P.M.	Mean Height.	Time 8 hours, 00 minutes.	
Monday, April 29,	29.20	29.23	29.28	29.19	28.28	48	62	51	49		5
Tuesday, “ 30,	29.33	29.36	29.47			52	55	42			
Wednesday, May 1,	29.62	29.62	29.60			41	50	44			
Thursday, “ 2,	29.55	29.34	29.29			37	51	47			
Friday, “ 3,	29.08	29.17	29.26			50	44	41			
Saturday, “ 4,	29.26	29.18	28.95			42	57	51			
Sunday, “ 5,	28.57	28.28	28.49			49	61	52			

**BOOKS RECEIVED.**—Theory and Art of Bread-making. By Eben N. Horsford, Rumford Professor in Harvard University, Cambridge.

**MARRIED.**—At Fitchburg, 2d inst., James R. Wellman, M.D., to Louisa H., only daughter of Hon. Nathaniel Wood, of F.

**DEATHS IN BOSTON** for the week ending Saturday noon, May 11th, 64. Males, 33—Females, 31.—Abscess (psoras), 1—accident, 1—asthma, 1—disease of the brain, 1—inflammation of the brain, 2—bronchitis, 1—cancer, 1—cholera infantum, 2—consumption, 15—croup, 2—debility, 1—dropsy, 3—dropsy of the brain, 3—dysentery, 1—epilepsy, 1—scarlet fever, 6—hemoptysis, 1—disease of the heart, 1—inflammation (internal), 1—jaundice, 1—disease of the kidneys, 1—inflammation of the knee, 1—congestion of the lungs, 1—inflammation of the lungs, 2—marasmus, 1—old age, 1—peritonitis, 1—premature birth, 1—puerperal disease, 1—smallpox, 2—disease of the spine, 1—tabes mesenterica, 1—unknown, 4.

Under 5 years of age, 19—between 5 and 20 years, 10—between 20 and 40 years, 20—between 40 and 60 years, 10—above 60 years, 5. Born in the United States, 37—Ireland, 22—other places, 5.



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DETECTION OF STRYCHNIA IN THE SUBSTANCE OF A STOMACH.

BY CHARLES T. JACKSON, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

THOSE who have read the celebrated Palmer trial, and that recently published in this JOURNAL, are aware that chemists have been doubtful whether strychnia could be satisfactorily detected in the tissues. Recently I have had an opportunity of fully testing this question, and will now give that portion of the case to the public, leaving the other circumstances to be developed in a trial now pending. After separating small portions of strychnia from the contents of the stomach, by the most approved processes described in the books, I took the stomach, dissected off all the fat that could be separated, and then inverted it and washed it with hot alcohol, and from the alcoholic solution I separated a little strychnia.

I next took the stomach itself, cut it into small fragments and digested it in cream of quicklime until it was thoroughly disorganized, a boiling heat being employed. Then the whole was dried off, until it became too thick to run, and it was next placed on filtering paper and made thoroughly dry in a current of warm air, after which the whole was reduced to fine powder, and was boiled in 80 per cent. alcohol for some time and then filtered, and the matter on the filter was washed with weaker alcohol so long as anything could be dissolved out containing strychnia. The whole clear solution was then evaporated, by a steam bath, to near dryness, and a dilute solution of pure sulphuric acid was added, until slight acidity was discovered by blue litmus test paper.\*

I then adopted Dr. Hayes's method of clearing the solution of oil or fatty matters, namely, by adding purified wax and boiling so as to cause the molten wax to absorb and solidify the oils. The

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\* This method, I understand, was first employed for the detection of strychnia in animal tissues by Dr. Green, of Cambridge. (See Proceedings of Boston Soc. Nat. Hist.)

vessel was then placed on snow and allowed to cool to the freezing temperature. By this means I obtained a solid crust, which contained all the fat now combined with the wax, and the solution below it being drawn off and filtered through Swedish paper was clear and nearly colorless. This was treated with pure bi-carbonate of soda, in excess beyond saturation, and again filtered through Swedish paper. Then pure ether was mingled with it, in the proportion of five or six times its bulk, and the whole placed in a glass tube having a cork with one long tube reaching through the whole length of the glass, and another just passing through the cork, this being my separating apparatus. In this the two liquids were thoroughly mixed by shaking, and the glass was inverted, the tubes being both closed with the thumb. After the ethereal solution had separated and risen to the surface, the heavier liquid below was drawn off by itself, and the ethereal solution was then allowed to flow out into a series of watch-glasses, from which the ether evaporated spontaneously, and beautiful feathery crystals of strychnia were obtained. These were then washed out by weak alcohol into a single watch-glass, and on evaporation of the alcohol and water under the exhausted air-pump bell over concentrated sulphuric acid, well-defined prismatic crystals of strychnia were obtained, and were examined by the microscope and compared with known strychnia crystals. The bitter taste of these crystals was observed to be identical with that of known strychnia. They also responded perfectly to all the color tests as strychnia, and produced the characteristic salts with bi-chloride of platinum, &c.

In applying the color tests, concentrated sulphuric acid (oil of vitriol) must be applied to the strychnia and observed, whether or no it produces any change of color. In pure strychnia it will not. Then add a small crystal of bi-chromate of potassa, and if the matter is strychnia, streaks of blue changing into violet, purple and red will appear, and these streaks may be renewed for hours, even if there is but a visible particle of pure strychnia present. Ferri-cyanide of potassium (red prussiate of potash), per-oxide of lead and per-oxide of manganese will give the same colors when they are added to the strychnia in sulphuric acid. If per-oxide of lead is employed, a fraction of a drop of nitric acid should be added. All these tests showed the crystals obtained from this stomach to be strychnia, as did the other characteristic chemical compounds of it. There still remained a very important experiment to make, to place beyond question the nature of this poison, and that was by the actual trial of it on a living animal. Having but little of it to operate with, I selected a Canary bird for the experiment, and after dissolving one twentieth of a grain of the crystals in alcohol and water and evaporating off the alcohol, leaving an aqueous solution of strychnia, Dr. Ainsworth having made an opening in the skin of the bird, which was held by Mr. Balch,



by means of a pipette I threw a drop of this solution under the skin of the bird. In a few moments it had convulsions, and died with the characteristic symptoms of strychnia-poisoning in less than one minute, the legs being thrown stiffly back in a line with the body, and the neck bent back by the spasm.

The whole amount of strychnia which I separated from the substance of the stomach in this case was less than one tenth of a grain, but it was well defined and clear from all admixtures. I found it much less difficult to extract the strychnia from the substance of the stomach than from the grumous mass of half-digested matter which it had contained, and I recommend this method to my brother chemists as reliable and not difficult to execute.

*Boston, May 1st, 1861.*

DR. ROBIN'S MEMOIR ON THE ANATOMY AND PHYSIOLOGY OF  
THE MUCOUS MEMBRANE AND THE EPITHELIUM OF THE  
UTERUS DURING PREGNANCY.

[Continued from page 283.]

PART SECOND.

OF THE MODIFICATIONS WHICH THE EPITHELIUM OF THE BODY OF THE UTERUS UNDERGOES DURING GESTATION IN THE HUMAN FEMALE AND IN ANIMALS.

§ 1.—*Of the modifications of the Uterus during pregnancy in the Human Female.*—The epithelium of the cavity of the uterine neck, as we have already said, preserves its cylindrical state during the whole duration of pregnancy, but at the same time loses its vibratile cilia upon the majority of the cells.

This is not the case with regard to the epithelium of the cavity of the body.

Having had occasion to examine numerous uteruses pregnant up to a period of two months, two months and a half, three, five, six and seven months and a half, I have observed that this epithelium gradually changes from the cylindrical, or perhaps better, the prismatic form, to the tessellated condition.

There is no fact which proves that it is the prismatic cells, which, directly, take the tessellated form. On the contrary, everything demonstrates, that at a certain period after impregnation, the epithelium of the cavity of the body of the uterus exfoliates, cell by cell, so to speak, or by little fragments, and that, succeeding this, that which replaces it is an epithelium, tessellated, with cells of from twelve to eighteen thousandths of a millimetre (from  $\frac{450}{100000}$  to  $\frac{700}{100000}$  of an inch) in size, regularly polyhedral, and juxtaposed like a pavement. They have a spherical or slightly ovoidal nucleus, very nearly the size of a red-blood globule. The nucleus is finely granulated, and, in a majority of cases, without any nucleolus. Deep, yellowish granulations fill the body of the cell, almost completely. The largest of these surround the nuclei with consi-

derable regularity. There is quite a large number of these cells which have no nuclei, and which are uniformly filled by these yellowish, fatty granulations. Those of the cells which are in this condition, or that are supplied with nuclei, which float freely in the uterine mucus, invariably become spherical, more enlarged, and sometimes more granular, than those which are joined together like a pavement.

This condition of the cells is quite regularly met with, from the sixth week to the second month, as well upon the decidua vera as upon the reflexa.

From that period forward, there are here and there portions of small extent, and showing no design in their position, which want the epithelium.

By reckoning from two months and a half, we observe, in the places of the regular cells, which we have just described, others much larger, and particularly much more elongated. They are minute, pale, flattened, and from four to nine hundredths of a millimetre (about  $\frac{1}{100000}$  to  $\frac{28}{100000}$ ) of an inch in length, but always irregular, prolonging themselves to a point at one or two of their extremities, or at many of their angles at the same time.

They have a nucleus larger than that of the preceding cells, always ovoid, and finely granulated. These large, pale cells, have few granulations. The fatty granulations which they enclose are separate one from the other, scattered about, irregularly distributed, and rarely grouped together or collected in spots.

These large cells, elongated, and having little regularity, go on increasing in number, proportionately with those first spoken of, according to the phases of pregnancy, and greatly outnumber them at the time of delivery. The extent of those portions which show no epithelium, also, continues to increase, so that upon the free face, or the non-adherent surface of the uterine decidua and the decidua reflexa, it is only in spots of limited extent, and after much search, that we can find the epithelium.

In proportion as the pregnancy has run through its phases, we make out also, that the nucleus of the great cells, which, at about the second or third month, often want the nucleolus, now presents one or two, which are yellow and brilliant in the centre, with a clear and deep outline. The nuclei have also become larger, and this increase in volume is equally to be noted in the body of the cells, as well in their length as in their breadth.

In the vicinity of the superior orifice of the cavity of the neck of the uterus, at the eighth month of pregnancy, the decidua reflexa is not adherent to that portion of the mucous membrane or the uterine decidua, which lies next the preceding orifice, for the extent of about three centimetres (a little more than an inch). We find in this region, cells similar to those which I have just described; some are regularly polyhedral, others elongated, and all of them show, very distinctly, two large ovoid or spherical nuclei



from twelve to fifteen thousandths of a millimetre in length ( $\frac{450}{1000000}$  to  $\frac{600}{1000000}$ ) of an inch, and about one fourth as wide. These nuclei are generally provided with one or two brilliant and yellowish nucleoli. Nevertheless, the cells are studded only with fine greyish granulations, uniformly distributed through the body of the cell, and through the nucleus, where they are less numerous than in this last. In this region, some of the cells still very distinctly preserve their prismatic form, especially towards the free extremity, which is regular, and cut square off. The end which adheres, however, is generally rounded, distended, and more enlarged than the rest of the substance. In this region the cells are accompanied by numerous free nuclei and amorphous matter, very granular, but with very fine granulations.

At this period of pregnancy, the epithelium of the tube is composed of nucleated epithelium, with ovoid nuclei; sometimes, however, spherical, and kept connected by a small quantity of amorphous matter. This epithelium is accompanied by a few prismatic or rather ovoid cells, having but little regularity, short and narrow, and provided with a nucleus similar to the free nuclei of the nucleated epithelium.

§ II.—Of the principal arrangements, which the cells of the uterine epithelium, corresponding to the inter-utero-placental decidua, present in the human female.

In the preceding paragraph, I have shown, that, during pregnancy, the prismatic epithelium, at an early period, is replaced by tessellated epithelium. I have pointed out the principal characteristics of the cells, which exhibit a multitudinous variety of forms.

But the modifications which the epithelial cells of the uterus undergo, during pregnancy, are not the same in all parts of the mucous membrane. I will now mention what kind of changes the epithelial cells of the organ of gestation undergo at the placenta and at its circumference.

The changes which gradually take place in the epithelial cells which are formed, included or wedged in, in some way, between the placenta which develops them, and the vascular portion of the mucous membrane of the uterus, which becomes the *inter-utero-placental decidua*, are most interesting, and at the same time most difficult to observe.

Since I drew attention to these modifications, although curious and remarkable,\* I have discovered that it is indispensable that they should be known in detail. This point is necessary in order that we may definitely measure the limits between which certain anatomical elements are susceptible of variation, according to the normal or pathological conditions under which they are placed, and from that, determine the nature of those which sometimes

\* Ch. Robin, *Mémoire pour servir à l'histoire anatomique et pathologique de la membrane muqueuse utérine, de son mucus et des œufs, ou mieux glandes de Naboth.* Lu à la Société philomathique, le 28 Mars, 1848. (*Archives Générales de Médecine*, 4t. Série, t. xvii., Paris, 1848, in—8°, p. 201.)

present themselves in morbid products, or which, up to the present time, have not invariably been well understood.

Besides, these changes take place also, in the cells which cover the uterine decidua and the decidua reflexa, and are found included between the two portions of the mucous membrane of the uterus, already become deciduous, when, in consequence of the increase in volume of the ovum, they begin to approach each other to adhere together. These modifications constitute a series, in some way, and in reality succeed those which have been described at the beginning of the preceding paragraph; they are a continuation of them. Before describing them, it is important, at least, to state that the intimate adhesion of the uterine decidua and the decidua reflexa strongly applied, the one to the other, in consequence of the increase in volume of the ovum, has for its effect, to bring into contact the epithelial cells in the substance of the decidua, even, a membrane which, at the time of delivery, appears to be a simple one, so close is the adhesion of these two, so called, uterine and reflected portions. But, this situation of the epithelial cells is not observed in the normal state, and would seem to be pathological, if we had not followed the phases of the gradual and ere-long intimate junction of the uterine decidua and the decidua reflexa.

[To be continued.]

## THE CHEMICAL TREATMENT OF DISEASE.

[Read before the Medico-Chirurgical Society of Toronto, March 12th, 1861, by C. B. HALL, M.D., Toronto.]

MR. PRESIDENT,—The short time you can spare for an essay could be readily occupied in naming the different hypotheses advanced for the explanation of the *modus operandi* of medicines, all at variance with one another, all failing when put to the test of practice, and yet none without some grounds of physiological truth for their foundation.

I propose, therefore, that we leave, as we find them, those sound principles of nosology that have stood already the experience of men of learning and thought, and devote a few minutes to the consideration of Liebig and Müller's opinion, that inflammation is an oxydized state of the proteine, and that all disease is the result of disarrangement of the affinities of particles, and see how far a chemical treatment may serve as an adjunct to a regular course of medicine. We do know of strange chemical changes constantly attending the animal economy. Thus in the normal state, the gastric juice, the almost first stage in nutrition, is acidulous, while the blood, the result of this digestion, is alkaline. Again, we have the secretion from the liver, the largest secreting organ in the body, with an alkaline base, while the product of the no less important organs, the kidneys, is uric acid. We have also



the oleaginous and albuminous secretions, the representatives of nitrogen and carbon, as we find others of oxygen and hydrogen, the two other elementary principles of all organic compounds. This in the healthy state. How innumerable the effects of their slightest variation in disease! not acknowledging the theory that this constitutes disease, but simply viewing them as co-incidents and their regulation as concomitants.

Take, for instance, the simplest form of congestion, or perhaps, more properly, torpor of the liver, found in the moderate drinker, particularly the beer-drinker, and more particularly when in moderation he has taken a little extra, with a few glasses of spirit, you find the tongue coated with heavy white fur, the gums pale and the fauces dry, the patient complaining not so much of constipation of the bowels, as a difficulty in passing what he calls a gummy, sticky sort of substance, which clings to him with a tenacity almost immovable, and of a dark green color, with very little odor, and attended by smarting, but no pain. The remedy for this is blue pill and black draught, or, as an old friend of mine in the country takes, ten grains of submuriatic hyd., followed by salts and senna. Chemically this is an acidulous excess, both in stomach and liver, and ten grains of carbonate of soda to act on the stomach, and ten of bitart. potass. to neutralize the hepatic secretion, in a glass of cold water, will often effect a cure in a few hours.

One of the most troublesome attendants of bilious as well as infantile remittent fever is the constant passing of green bile with mucus, showing its irritating effect on the membrane, thus provoking the febrile action and otherwise retarding the cure. I do not mean to say that liq. potass. or any other preparation of that alkali will cure bilious fever, but there is no doubt their use will correct this abnormal secretion, and thus effect one of the most important indications.

On the treatment of dysentery or diarrhoea, or whatever name you give to the various bowel complaints of children, you find a double action, or one extreme running into the other. If you are consulted in the early stage, you find the tongue slightly coated, but white, appearing as if the child had just taken a drink of milk. The stools green, somewhat painful, but not frequent, &c. This is always treated with antacids, as hyd. c. creta, with creta c. opii comp. or carb. soda, so that I have no particular point to call your attention to. But what is far more likely, you do not see the case till various pills and potions have been administered by the too confiding parents, suggested by the too knowing neighbors, *whose children have been exactly the same*, and cured by the far-famed remedy. You find the tongue coated in the centre with a dirty-white, inclining to brown, the tip and sides red, the fauces, gums and lips of the same color, a painful expression of countenance, with a whining, feeble cry, constantly picking its lips or ends of its fingers; stools more frequent, of the color of the

coating of the tongue, more painful before each motion, and increasing in frequency, &c., and you will invariably find an alkaline reaction, the stools often effervescing with nitric acid. Whatever course of treatment you would each suggest, you will find its efficacy most wonderfully advanced by an acid accompaniment, such as tr. ferri muriatis. Or still further, you may find the eye sunken, with a dark areola; skin something of the color of the tongue, flesh full, but flabby and doughy, with other strumous indications. Here is an opportunity for a double chemical action. Feed the child on starch, and give diluted nitric acid. You will not only furnish the best nourishment, and counteract the excess of alkali in the system, but nitric acid converts the starch into oxalic, than which no remedy appears to have such specific power over the strumous diathesis.

Take another familiar example with children, one in which you have no doubt been sorely tried, and wished, like the patient man of old, "your enemy would write a book" on it. A child at breast—the mother, strong and healthy, eats her meals with relish, has plenty of milk for the child, even more than it requires. This you find, on standing in the glasses, rich, and covered with thick, almost buttery cream. She tells you the child nurses freely and throws it up without any curdling. Bowels inactive for a few days, then three or four motions a day for a few more. Pulse feverish, child pale, fretful, crying and whining constantly. Here is a case of infantile indigestion, tending to cachexia. You prescribe infusion of cinchona, or some tonic, but without avail. Chemistry says, if you give that child sugar, it will convert the casein of the milk into lactic acid, the natural gastric juice of the child, and experience confirms the magical effect.

A white tongue is not a characteristic of pneumonia (I mean a clean white, like milk, distinguished from the snow-white of inflammation); but your experience will call to mind many cases of this formidable disease, with this anomalous attendant, and its no inconstant fellow symptoms of an acidulous action, the discharge of *green bile*. The chemical treatment in this case, is to combine liquor potassæ or bi-tart. potass. with your other remedies.

Rheumatism has been so frequently associated with excess of acid, that theorists have, for a few years past, laid down an alkaline course of treatment—but that excess of acid in the acute, or of alkali in the chronic, is symptomatic of the disease, I utterly deny. And here, in an opinion at variance with such a name as L. Golding Bird, let me ask you, if your own observations will not join me in the assertion that there is a marked difference between rheumatism in Europe and rheumatism in Canada, particularly those of you who have had an opportunity of seeing cases in the hospitals of London as well as this country. Nothing struck me more forcibly. Not to detain you with the question just now, I may allude to the well-known fact that in England the chronic



form tends to rheumatic gout, while in this country it assumes the nature of palsy. However, that the excretions in some cases, and often in certain stages of the same case, will acknowledge the test of alkaline and acid excess respectively, I think I may safely state as proven; hence it is our duty to seek out the admonitions that chemistry suggests, and govern ourselves accordingly.

The powerful antiseptic and disinfecting effects of chlorine have been long known, but until the accidental discovery of chloride of potassium, a few years ago, the different forms in which it was necessarily administered contained objections commensurate with its advantages. This salt is free from any of the difficulties of former preparations. Not so caustic for local use, as chloride of lime, and more effective than the chloride of sodium, it imparts its chlorine readily, and leaves the potass. as mild a caustic and gentle stimulant as could be wished—and wherever it has been applied to foetid and indolent ulcers, the whole array of yeast and charcoal and other carbonaceous applications have fled before it in confusion. In that modern and most dreaded disease, diphtheria, there appears to me no safety in any other remedy. This is a malignant fever with putrid sore throat, the whole lining surface of the fauces and pharynx throwing off a false membrane, which again immediately forms attachments in places and thus hastens dissolution by a mechanical obstruction. Gentlemen, whose opinions I cannot but respect, still place their trust in the *nitras argenti*; but its application is very difficult, as it should touch *only* certain places, and its effect uncertain—while two or three free applications of the chloride of potass. with a sponge, will almost completely remove the local difficulty, and leave you a fair wind and an open sea.

Thus we have viewed chemistry only as adjunct or a chief assistant at our labors; but as we rise in the scale of disease, and find, as we do, our difficulty increase and our skill more at fault, we may be induced to look to this science as the polar star in our distress, and the guiding spirit to carry us through the storm. To include under one general term, the different disorders of this kind, such as albuminuria, tuberculosis, phthisis, &c., I will speak alone of scrofula or general cachexia, and of course will not attempt any minutiae of detail.

We find an excess of fluid over the solid part of the body, as well as deficiency of fibrin or muscular fibre, and often total want of some important constituents of health, such as phosphorus and sulphur. Or we have excess of hydrogen, with loss of nitrogen. On the use and distribution of these two elements depend, almost solely, our hopes of cure; simply using carbonaceous and oxygenated substances as nourishment, to keep good the supply and preserve the waste, until we can effect a change in the other ingredients. That chemical changes do not take place with the same certainty and regularity in the system, influenced by vitality,

as in the alembic and under our observation, I am willing to admit; but that these changes are more or less definitely and correctly effected while circulating in the blood, I think can be as clearly proven. As an instance, and it constitutes a most important part in our curative process, give, for a few days, cod-liver oil with phosphate of lime, and you will detect the dumb-bell crystals of oxalate of lime in the urine. Now this can only be effected by the change of carbonic acid and carbonic oxide into oxalic acid, which from its stronger affinity sets free the phosphoric acid and unites with the lime. This change is easily produced in some part of the transit through the circulation.

Raw beef, pounded to shreds, has of late received the approval of the London and Continental Hospitals, as food in these cases, upon physiological reasons, particularly its ready transformation with little effort of nutrition to the much needed fibrin—but we also find that the pounding divests it of its cellular substance or cellulose, which is composed of hydrogen and oxygen in the exact proportions to form water. So the three, carbonic, oxalic and tartaric acids, to which so much importance has been attached, contain, two of them none, and the other a very small proportion of hydrogen, which may materially check that ready solvent from carrying the most important solids out of the system. I cannot agree with the one-man power of Dr. Churchill about the use of hypophosphites, but have no doubt of their most important efficacy when combined with cod-liver oil so as to produce the chemical transposition before mentioned.

The chemical indications of cure, therefore, consist in the proper regulations of hydrogen and nitrogen. The first by keeping from the system all such articles of diet as contain the elements of water, and using for medicines, like chemical compounds, the few acids I have named. The second by conveying into the system as much as possible of substances rich in nitrogen. Of these the principal are nitric acid, nitrate and cyanide of potass., and the different preparations of ammonia, the chief of which is the muriate—with articles of diet confined to caseine of milk, albumen of egg, and fibrin from beef and mutton.

Fruit, often highly recommended, derives its principal advantage from the long mastication required, causing a greater quantity of atmospheric air to be conveyed to the stomach with the saliva.—*British American Journal*.

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THE following figures have been published by M. Paul Dubois in a statistical investigation of the subject of the influence of lead poisoning in the production of abortion. Out of 141 pregnancies in females under the influence of lead, 82 abortions took place; in 4, premature confinements occurred; in 5, the children were stillborn; in 20, the children died in the course of the first year; in 8, during the second year; and in 7, in the third, &c.



**Medical Reports from the Mass. General Hospital.**

PREPARED BY ROBERT WARE, M.D.

**PNEUMONIA.** (Under the care of Dr. BOWDITCH.)—Hugh C., 20 years, an unmarried, Irish teamster, entered Dec. 7th, 1860. The patient states that on Sunday, 2d inst., he was, without any known exposure, attacked by a violent chill, which was followed by fever and pain in the right side of the chest. He afterwards had urgent and frequent cough, with the expectoration of sputa, which were at first frothy, but have within two days become viscid and bloody.

On entrance, the decubitus is on the left side, the skin is hot and dry, and the respiration labored and thoracic; pulse 100; tongue coated with a dry white fur; has paroxysms of cough, with expectoration of rusty mucus; there is pain over the whole right side of the chest, extending up to the shoulder. R. Pulv. Doveri, gr. vi. every three hours. Liquid farinaceous diet.

Dec. 8th (7th day of the disease).—He has had a very restless night, with much cough; he has taken six powders; is now lying on his back; skin moist; respirations 36, and quite labored; pulse 96, not full nor hard; percussion is tympanitic from the clavicle to the nipple on the right side, and dull below the nipple; it is also dull over the lower third of the right back; the respiratory murmur is obscure over the right back, without bronchial respiration or distinct crepitus; the respiration of the left side is somewhat obscured by sonorous and sibilant râles, which are even more marked over the right front; the sputa are purely pneumonic. Apply six leeches to the right side of the chest, and warm water compresses after the leeches. R. Opii, gr. iij.; antimon. et potass. tart., gr. i.; hydrarg. submur., gr. vi. M. in pil. 6. Give one pill three times a day. R. Vin. antimon., ℥ss.; morphiæ acetat., gr. ij.; syr. simplic., ℥ij. M. Give a teaspoonful, according to the cough.

Dec. 9th (8th day).—Some relief followed the leeches and hot compresses, but he had a more restless night, with increase of cough; expectoration still rusty and aerated; pulse 84, respirations 36; has taken three pills and four doses of the syrup; tongue dry, brown in the centre; absence of respiratory murmur and the dulness on percussion over the lower lobe of the right lung are the chief physical signs. He was allowed some bread; the medicine of the 8th was continued, and compresses wrung out in laudanum were applied to the side.

Dec. 10th (9th day).—He coughed much in the night, but the pain was very much diminished, and he had no severe fever turn; skin and tongue moist; pulse 72, respirations 36, and less labored; tympanitic quality in the percussion of the right front has wholly gone, and the resonance is pulmonic; less râle in front, and *râle crépissant de retour* over the right back. Omit his pills. Give him an enema.

Dec. 12th (11th day).—The enema was not required; his whole aspect is much improved; pulse 60, respirations 36; cough diminished and expectoration not viscid; a little swelling of the gums; crepitous râle more distinct. Vegetable diet.

He improved steadily from this date, and began to take broth on the 13th day; the râle and dulness on percussion had nearly disappeared by the 14th day, when he was allowed house diet; there con-

tinued to be some pain in the movements of the chest for several days, but he was discharged "well" on the 23d day of the disease.

**PNEUMONIA.** (Dr. BOWDITCH.)—Thomas D., 23 years, an unmarried, Irish laborer, entered Jan. 6, 1861. Patient states his health has usually been good, though he has suffered for the past fifteen months from a feeling as if his food lodged for a short time in the œsophagus, and during the past month his appetite has diminished. Four days since (Jan. 2d), he was attacked with chills, which were followed by ordinary febrile symptoms; there was no cough. On entrance, he is considerably prostrated, with flushed cheeks and suffused eyes; decubitus on the right side; pulse 96; tongue covered with a thick white coat; teeth a little crusted; abdomen flat and without rose spots; on full inspiration some pain in the left side; slight sonorous râle in front of both lungs, but otherwise respiratory murmur is normal, except at the back on the left side, where a slight crackling is heard; the area of dulness over the heart is greater than usual, extending from mid-sternum to the nipple and from the third to the sixth rib. R. Ol. ricini, ℥ss. Apply warm fomentations, and let him have liquid farinaceous diet.

Jan. 7th.—(6th day of the disease).—Still a good deal of pain about the left side and the region of the heart; skin hot; pulse 108; he complains of the feeling of arrest of food in the œsophagus, but swallows without any apparent difficulty. R. Spt. ether. nitros., gtt. xx. three times each day.

Jan. 8th (7th day).—Skin moist and cooler; no febrile attack; some buzzing in the ears; pulse 96, full; tongue rather browner coat; abdomen as yesterday; slight cough, with a little transitory mucous rale at the left back.

8th day.—He has had rather more cough, and the sputa are rusty. On thorough percussion of the back, no distinct dulness is detected, but the resonance is perhaps less clear at the middle third of the left back than elsewhere; there is no crepitus or bronchial respiration, but some transitory sonorous and mucous rales. In front, a fine crepitus is heard below the second rib along the left edge of the sternum, and it extends as far as the axilla; the respiration is rude directly under the clavicle, and slightly bronchial between the second and fourth ribs. Pulse 72, and he appears to be gaining.

On the 9th day, the pain and feeling of oppression in the chest were gone; the sputa continued rusty; pure crepitus had replaced bronchial respiration in the upper part of the left front. The sputa continued to be to some extent pneumonic in character until the 12th day, but the crepitus was wholly gone by the 13th. He was allowed broth on the 14th day, and was discharged well on the 22d.

**ACUTE RHEUMATISM, COMPLICATED WITH PNEUMONITIS, PLEURITIS, AND ENDOCARDITIS.** (Under the care of Dr. BOWDITCH.)—Catherine C., 32 years, a married Irish woman, and the mother of five children, entered November 25th, 1860. Patient states that her health has been good, with the exception of an attack of lung fever fifteen years since, and of rheumatic fever two years since. Her present sickness began with pain in the various joints of the body, and she has been confined to the bed since Oct. 25th. About Nov. 1st, she began to suffer from



pulmonary symptoms, viz., cough, dyspnœa, pain across the chest, and was visited by a physician Nov. 4th. This gentleman, who sent her to the Hospital, states that at his first visit he found her suffering from an acute thoracic affection, which had apparently supervened upon rheumatic fever; at both bases behind, the respiration was harsh and nearly bronchial, and mixed with much râle; there were resonance of the voice and dulness on percussion over the same places; there were much cough and dyspnœa, but the sputa were not pneumonic; no unequivocal evidence of cardiac disease was detected. She was treated by leeching and small doses of antimony at first, with some relief to the urgency of the symptoms, and afterwards by saline laxatives, small doses of the spirit of Mindererus, and counter-irritation by means of hot turpentine stupes; she took opium quite freely, and her nourishment consisted of beef tea, cider and wine in such quantities as she seemed able to bear. Under this treatment she improved; on Nov. 17th, her pulse had fallen to 84; her appetite had returned, and, though the physical signs at the bases of both lungs had not disappeared, she was quite comfortable. In a few days she had a return of pain and swelling in some of the joints, and an aggravation of the thoracic symptoms, and effusion into the pleura was detected Nov. 20th. \*She grew steadily worse up to her entrance into the Hospital.

At entrance, Nov. 25th, patient is lying on her back, with anxious countenance and moaning respiration; she complains chiefly of soreness across the chest, and of pain in the right shoulder and left hand, which are somewhat swollen and reddened; area of cardiac dulness rather larger than normal; bellows murmur after the first sound at the apex of the heart; second sound of the pulmonary artery accented; bronchial respiration is heard over the lower third of the left back where the percussion is duller than on the other side; respiration harsh, nearly bronchial, over the whole right back; pulse 120, full and regular; tongue moist and red; cough quite severe at night; expectoration frothy, white, and streaked with a little blood. *R.* Quiniæ sulphat., gr. i., three times a day. Diet of broth, beef tea, fish and baked potato. *R.* Pulv. Dover., gr. viii. every night. She appeared more comfortable for some days, though she still complained of pain in the cardiac region; and other joints, besides those affected at her entrance, were attacked.

Nov. 29th.—She is able to sit up better, and walked across the ward this morning. Bronchial respiration is less distinct at the right back, where the râles are coarser and more abundant; percussion still quite dull at the base of the left back, where the respiration is obscure; pulse 96; coughs much at night.

Nov. 30th.—Cardiac murmur and dulness as at entrance; in the right back, below the spine of the scapula, there is occasional fine crepitation with bronchial respiration and bronchophony; has had a bad night, with more cough; pulse 96; bowels open. Omit medicines. *R.* Vin. colchici, gtt. xx.; elix. opii, gtt. x.; three times a day. The ethereal tincture of iodine (i. e. iodine, 3ss. to sulphuric ether, 3i.) was applied over the back and the heart as a counter-irritant; half a grain of opium was given at night.

Dec. 7th.—She has somewhat improved in strength and appetite, but still suffers much from pain in the various joints and through the chest; the breathing is sufficiently easy while she is quiet, but becomes labored when she moves or talks; percussion is still dull at the

lower part of both backs; bronchial respiration rather less marked, but still heard about the spine of the right scapula; no crepitus; slight œgophony at the lowest part of the left back. Increase colchicum to fifteen drops. She was allowed egg and wine, and was permitted to sit up.

Dec. 12th.—Dulness and bronchial respiration gone from the right back; some crepitus and dulness on percussion at the left base; joints stiff, but not painful; she has slept more quietly, and has coughed less.

Dec. 19th.—She sits up and talks without apparent dyspnœa; respiration in the lower parts of both backs is obscure; there is some friction sound and resonance of the voice at the left base behind; the bellows murmur is still distinct, but is less rough. Let her have a warm bath once in three days. *R.* Tinct. cinchonæ, *C.* ʒi. twice a day; omit the colchicum.

On the 21st, a slight crepitus and some tendency to a bronchial character in the respiration, with a little dulness on percussion, were noted at the base of the right lung, but this soon disappeared. She complained of pain and a feeling of weakness in the region of the heart, and had on two small blisters over the heart, but was able to walk about freely on the 30th. From that date she gained steadily, though still suffering from cough and occasional rheumatic pains; and, Jan. 5th, 1861, it was noted that the respiration, though a little obscure at the bases of the lungs, was not morbid and was without râle.

Jan. 13th.—There was a return of the râles behind, and a marked aggravation of the pulmonary symptoms coincident with an increase in the pain and stiffness of the various joints; she also had some fever. This condition lasted but three or four days, and she was discharged well, Jan. 22d, 1861. She had been sick about thirteen weeks, and it was nearly twelve weeks since she was attacked with pulmonary symptoms.

### **Bibliographical Notices.**

*Another Letter to a Young Physician; to which are appended some other Medical Papers.* By JAMES JACKSON, M.D., &c. 16mo. Boston: Ticknor & Fields. 1861.

THIS other Letter is in continuation of the well-known volume of Letters, from the same venerable author, published in 1855. It may be fairly designated as a little volume, but a great work. The principal paper, Letter Eighteenth, treats of a subject which has recently agitated, in an unusual degree, the mind of the public as well as of the profession, viz., the "utility of medicine;" or, as he has stated the question in more ample terms, "how far the sick are benefited by the care and prescriptions of the physician:—or, limiting the inquiry to the use of medicinal drugs—whether the sick are more helped than hurt by them." In discussing the question he discards all theories, believing that we do not yet possess sufficient facts on which to build a satisfactory system of rational medicine, and bases his conclusions upon experience, and for the most part on his own experience, regarding himself as a witness on the stand to tell what he himself knows.



No one acquainted with the author will question his competence as an observer, his entire single-heartedness in the search for truth, and the candor and logical sequence with which he arrives at his conclusions. Few men among us, certainly, have been privileged to prosecute investigations so extensively, and for so long a period.

As the whole letter is a condensed abstract of the conclusions of a life-time, it would be impossible to abbreviate; yet a few points may be adverted to.

That the question has ever seriously arisen, either in the public or the professional mind, whether there is any good to be derived from the "practice of medicine," we can scarcely credit. We think that, in the broad sense, no medical man would allow it; and if that expression has been used by others, we believe it to have been as an inexact equivalent for the "use of medicine." Dr. Jackson, at least, has full faith in the "practice of medicine," whatever interpretation may be given to that expression. To show this, he selects a few of the most powerful drugs, the same which his teacher had trusted in a hundred years ago, and states their effects, the diseases for which they are appropriate, and the mode of administration. He strongly advances the opinion that the onset of disease is the appropriate, and generally the only time for active treatment by medicines; and dwells fully upon the paramount importance of hygienic treatment subsequently, especially in all that class of diseases which have been termed self-limited. From these he is inclined to withdraw typhus, though we think the characteristic eruption would, by analogy, indicate otherwise. He does not abandon blood-letting; and, if practised according to his limitations, we believe it to be not only unobjectionable but highly advantageous. In this connection he contrasts the practice of Rush and his followers, and the celebrated Dr. Danforth, who relied on stimulants and nutrients. It is not a little singular to find how the doctrines of this latter practitioner have been revived by the distinguished Dr. Todd, though from the tone of his reviewers, we believe they will gain little credence beyond the circle of his immediate pupils.

Dr. J. states that this letter was called forth by the agitation which has followed the "Currents and Counter-Currents" of Dr. Holmes, with whom and with Dr. Bigelow, *rightly understood*, he declares he mainly agrees. Some may not be inclined to admit this, if they judge by a comparison of language. But however this may be, Dr. J. has fully vindicated his own declaration, "I have not become tired of administering medicine; I am not incredulous as to its utility." It is not a little gratifying to see the increasing tendency, in England especially, to accede to the doctrines of "Nature in Disease."

In his discussion of hygienic treatment, there are two or three things we are specially pleased to see enforced. One is, that we are to be guided in no small degree, in the selection of articles of food and even medicine, by the fancy of the patient; another is, that by kindness and cheerfulness we are to encourage hopefulness; but we might quote every precept advanced, with pleasure.

The other papers in the volume are, the reports of the medical history of two of our distinguished citizens, John Lowell, Jr., and William H. Prescott, in both of which some important points in disease are illustrated; a memoir on the last sickness of Washington; portions of a letter to Sir John Forbes in 1846, showing that the doctrines in regard to the treatment of disease he now holds were held

by him then ; and a note on the importance of studying the workings of the human mind and heart, as a part of the qualification for a good physician and nurse.

This little volume, as we said before, is a gem. Few things will be found in it to which any practitioner of any shade of faith will not assent, nothing that does not so commend itself to our common sense that we seem to have known it all before ; coming, without any obfuscation of learned words, in all the simplicity and plain English of the child, and yet with all the wisdom and authority of age and experience. Every one will read it, and desire to carry it with him as his daily guide.

We are happy to know that the Publishing Committee of the Massachusetts Medical Society has made arrangements to supply each of the members with a copy.

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## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

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BOSTON: THURSDAY, MAY 23, 1861.

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PROF. H. J. BIGELOW'S LECTURES ON MILITARY SURGERY.—In our issue of the 2d inst., we announced that Dr. Bigelow had kindly consented to deliver a gratuitous course of lectures on Military Surgery, at the Medical College in Grove St., to all those gentlemen of the profession who might choose to avail themselves of the opportunity. This generous offer met with a most cordial response from the profession, and as the course is now completed we feel it is due to the distinguished professor of surgery to express our sense of the obligation under which he has placed the medical public, and the community at large. The audience which daily crowded the lecture room might well inspire any man to his best efforts. Two hundred or more eager listeners, members of so busy a profession as ours, could not be drawn day after day to the College by any ordinary attraction. Many of the constant attendants came from the country for miles around Boston, and in one instance we are told an assiduous auditor made a daily journey of fifty miles and back to avail himself of the privilege. The course comprised a complete *résumé* of all the topics embraced by the copious subject treated of ; from ligation of all the principal arteries, every form of amputation, fractures, dislocations, gun-shot and other wounds, to the diseases peculiar to armies, the important hygienic precautions for protecting the health of soldiers, the peculiar duties of army surgeons in the field, the professional status of the military surgeon and his relations to other departments of the service, and concluded with a very able lecture on venereal complaints.

The subject of wounds was made peculiarly interesting by experiments performed in the presence of the audience. Having been furnished by the Adjutant General with the various kinds of arms likely to be used, Dr. Bigelow inflicted bloodless and painless wounds on the dead body before the class. An opportunity was thus given, for example, of witnessing the fearful effects of the "Minié" ball upon the bones, crushing and completely disorganizing the large joints,



where a common musket ball made a simple direct perforation. The whole course of lectures was, of necessity, much condensed, and the labor of preparing them was proportionately the more arduous; this could be done, however, without the danger of important omissions, as the audience was one of practising physicians, not students. When we state that the request to deliver these lectures was made to Dr. Bigelow on Saturday—that the first was delivered on the following Monday, and followed up with hardly a day's intermission to the close—each lecture being from an hour and a half to two hours long, with demonstrations on the body—some idea may be got of the amount of work done. The lectures were eminently practical, and the interest in them was sustained to the end. In speaking of the comparative merits of chloroform and sulphuric ether as anæsthetics for army use, a topic to which we have recently adverted, Dr. Bigelow's opinion coincided with our subsequently expressed views. Giving unequivocal preference, in his own practice, to sulphuric ether, on account of its entire immunity from danger, he nevertheless considered chloroform to be the best anæsthetic for army use: first, from its portability, its bulk being about one-eighth that of ether; second, from its comparative freedom from accidents by fire resulting from breakage, leakage, &c. Upon the question of danger from the inhalation of chloroform, Dr. Bigelow quoted Macleod's account of the Crimean war, during which but one fatal accident occurred from its use among the English, while Baudens states that in the French service no accident occurred from the inhalation of chloroform in thirty thousand cases.

We must not omit to mention the valuable aid contributed to this course of lectures by Drs. Cabot and Gay, who attended every afternoon at the dissecting-room of the College, to superintend the operations on the dead body, which those attending the lectures had the fullest opportunity of performing. Anatomical material was supplied in the greatest abundance, and these gentlemen were untiring in giving their personal advice and instructions to all who wished them. It is to be regretted that no provision was made for a full report of Dr. Bigelow's lectures, but in the haste with which they were got up, this was unfortunately omitted.

A meeting of the medical gentlemen who attended the course, was held after the last lecture, at the Medical College, on Friday, the 10th inst., of which Dr. Luther V. Bell of Charlestown was appointed chairman, and Dr. D. W. Cheever secretary.

Dr. Geo. S. Jones alluded to the sudden necessity of a course of lectures on military surgery, and to the promptitude with which Harvard University responded to the emergency. After dwelling upon the readiness with which the Professor of Surgery acceded to the request that he would deliver a course of lectures upon this subject, and also upon the assistance rendered by other gentlemen, he proposed the following resolutions, which were unanimously adopted.

*Resolved*, That the thanks of the meeting be presented to Dr. HENRY J. BIGELOW, for his valuable course of lectures on military surgery; and not only for the concise and practical way in which they were delivered, but also for the numerous and various apparatus and experiments with which they were illustrated.

*Resolved*, That the thanks of the meeting be also presented to Dr. S. CABOT, Jr. and Dr. GEO. H. GAY, for their very kind and able superintendence of the operations on the dead body, for the benefit of those gentlemen who are preparing for the arduous duties of military surgeons.

It was resolved that a committee of three be appointed to communicate to the above-named gentlemen the foregoing resolutions; and, on nomination by the Chair, Dr. G. S. Jones, Dr. Ezra Palmer and Dr. A. Coolidge were chosen a committee for this purpose.

WE gladly give place to the following communication, with the hope that any erroneous impression which may have been given by our editorial remarks may be at once removed.

In what we had to say with reference to the Medical Commission, our sole object was to state what we believed to be the truth, and we very much regret that in so doing we should have said anything which should have been regarded by any one as a misrepresentation of the views and feelings of those gentlemen who have so faithfully served the government in the present emergency, and to whom the whole public are so largely indebted.

*Messrs. Editors*,—I desire to correct the impression which a certain portion of the articles in your JOURNAL of May 9th and 16th may possibly leave on the minds of some, that the "Medical Commission" are as a body committed one way or the other upon the question of the value of chloroform as an anæsthetic. The matter is very properly left to the judgment of the regimental surgeon who makes the requisition, one great object of the Commission being, by careful examination, to prevent any applicant from attaining to that position whose discretion in the use of remedies cannot be relied upon.

Very truly yours, GEO. H. LYMAN.

*Boston, May 16th, 1861.*

WE publish with pleasure the following excellent directions for the sanitary conduct of the troops in the field, which constitute the substance of a report prepared by Dr. John Ware, of the State Medical Commission, to be communicated to the Massachusetts regiments in active service.

#### DIRECTIONS.

Soldiers should recollect that in a campaign, where one dies in battle, from three to five die of disease. You should be on your guard, therefore, more against this than the enemy, and you can do much for yourselves which nobody can do for you.

1. Avoid, especially, all use of ardent spirits. If you will take them—take them rather *after* fatigue than before. But tea and coffee are much better. Those who use ardent spirits are always the first to be sick and the most likely to die.

2. Avoid drinking freely of very cold water, especially when hot or fatigued, or directly after meals. Water quenches thirst better when not very cold and sipped in moderate quantities slowly—though less agreeable. At meals, tea, coffee and chocolate are best. Between meals, the less the better. The safest in hot weather is molasses and water, with ginger, or small beer.

3. Avoid all excesses and irregularities in eating and drinking. Eat sparingly of salt and smoked meats, and make it up by more vegetables, as squash, potatoes, peas, rice, hominy, Indian meal, &c., when you can get them. Eat little between, when you have plenty at meals.

4. Wear flannel all over in all weathers. Have it washed often when you can—when not, have it hung up in the sun. Take every opportunity to do the same by all your clothing, and keep everything about your person dry, especially when it is cold.

5. Do not sit, and especially do not sleep upon the ground, even in hot weather. Spread your blanket upon hay, straw, shavings, brush-wood, or anything of the kind. If you sleep in the day, have some extra covering over you.



6. Sleep as much as you can and whenever you can. It is better to sleep too warm than too cold.

7. Recollect that cold and dampness are great breeders of disease. Have a fire to sit around whenever you can, especially in the evening and after rain, and take care to dry everything in and about your persons and tents.

8. Take every opportunity of washing the whole body with soap and water. Rub well afterwards. If you bathe, remain in the water but a little while.

9. If disease begins to prevail, wear a wide bandage of flannel around the bowels.

10. Keep in the open air, but not directly exposed to a hot sun. When obliged to do this, a thin, light, white covering over the head and neck, in the form of a cap with a cape, is a good protection.

11. Wear shoes with very thick soles, and keep them dry. When on the march, rubbing the feet, after washing, with oil, fat or tallow, protects against foot sores.

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WE have been requested to insert the following :—

*Boston, May 23d, 1861.*

The undersigned, Chairman of the Committee appointed by the Medical Improvement Society of this city to investigate alleged deaths from the inhalation of sulphuric ether, desires to assure the profession that the investigations of that Committee are not of a partizan character, and have no relation whatsoever to the so-called "ether controversy." As an impression exists at a distance from here that the circulars which have been so largely distributed by them have some connection, either antagonistic or friendly, with the measures at present being taken in favor of Dr. W. T. G. Morton, this denial will, it is hoped, suffice to convince those gentlemen to whom they have been addressed that no ulterior motive is concealed, and that no use, other than that stated in the circular, viz., to prove or disprove the absolute safety of inhaling pure sulphuric ether, will be made of their replies.

R. M. HODGES, M.D.

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MESSRS. EDITORS,—As very frequent applications are made at the Medical College to visit the Museum, and as there are many specimens in the collection that would be appreciated by non-professional persons, the Faculty have decided to open it to the public; I would therefore request you to insert the following notice in your JOURNAL.

Yours respectfully,

J. B. S. JACKSON,

*Curator of the Museum.*

The Museum will be open, until further notice (and to adults only), every Monday afternoon from 3 until 5 o'clock. Tickets for admission, which are not transferable, will be required, and may be had gratuitously, at Mr. T. Metcalf's, 39 Tremont St., the applicants signing their names in a book that will be kept at the door of the Museum.

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NAVAL MEDICAL BOARD.—A Board of Medical Officers will convene at the United States Naval Hospital, New York, on the 1st of June next, for the examination of candidates for admission to the Medical Corps of the U. S. Navy. Candidates must make application to the Secretary of the Navy, giving their residence, date and place of birth, together with respectable testimonials of moral character. Applicants must not be less than 21 nor more than 25 years of age.

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Messrs. Baillière and Brothers have in press and will publish in a few days, "A Practical Treatise on Military Surgery," by Frank Hastings Hamilton, M.D. The distinguished reputation of the author will make this book most eagerly sought for.

**MEDICAL SCHOOLS OF CANADA.**—The number of students in attendance at the medical schools of Canada for 1860-61 is as follows:—University of McGill College, Montreal, 124; Toronto School of Medicine, 81; Montreal School of Medicine, 43; University of Laval, Quebec, 32.—*North American Med.-Chir. Review.*

**MEDICAL SCHOOLS AND STUDENTS ABROAD.**—During the past winter, the number of students in Paris was 1156; in London, 1237; and in Dublin, 806; showing a large increase over the session of 1859-60. In Dublin, the number attending the different schools was as follows:—Ledwich School, 228; College of Surgeons' School, 220; Cecilia Street School, 101; Trinity College School, 100; Richmond Hospital School, 97; Steevens's Hospital School, 60.—*Ibid.*

**THE BITE OF RABID ANIMALS NOT ALWAYS FOLLOWED BY HYDROPHOBIA.**—A fact well worthy of notice is mentioned in the last annual statistics furnished by the General Hospital of Vienna. It would appear that out of 115 persons bitten by animals whose rabid state was clearly made out, only 25 died with symptoms of hydrophobia. As, however, the actual and precise length of the period of incubation is not known, these figures cannot be completely relied upon; but it is highly useful to note the comparatively small proportion of deaths which occurred after the well-ascertained inoculation with the poison.—*London Lancet.*

### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MAY 18th, 1861.

#### DEATHS.

	Males.	Females	Total.
Deaths during the week, . . . . .	27	36	63
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	33.7	34.3	68.0
Average corrected to increased population, . . . . .	..	..	75.5
Deaths of persons above 90, . . . . .	..	1	1

#### Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
17	3	1	2	0	0	1	0	0

#### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	29.916	Highest point of Thermometer, . . . . .	67°
Highest point of Barometer, . . . . .	30.144	Lowest point of Thermometer, . . . . .	38°
Lowest point of Barometer, . . . . .	29.722	General direction of Wind, . . . . .	E., W. & W.N.W.
Mean Temperature, . . . . .	55°.05	Am't of Rain (in inches) melted snow . . . . .	0.266

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 729.

		BAROMETER.					THERMOMETER.			SNOW & RAIN.		Mean Amount of Cloud 0 to 10.
		7 A.M.	2 P.M.	9 P.M.	Mean Height.	Highest Point.	7 A.M.	2 P.M.	9 P.M.	Mean Height.	Time 00 minutes.	
Monday, May 6,		28.50	28.62	28.70			55	53	52			
Tuesday, " 7,		28.75	28.89	29.05			49	55	48			
Wednesday, " 8,		29.23	29.26	29.26			48	65	60			
Thursday, " 9,		29.28	29.18	29.03			57	69	59			
Friday, " 10,		29.01	29.12	29.20			52	63	56			
Saturday, " 11,		29.26	29.22	29.24			58	66	57			
Sunday, " 12,		29.18	29.09	29.06			53	57	51			

**DIED.**—In New York, May 13th, D. Meredith Reese, M.D., LL.D., aged 61 years.—Feb. 13th, at La Fayette, New Orleans, Dr. George Logan, aged 83 years, late of Charleston, S. C., and father of Dr. Thomas M. Logan, of Sacramento.

**DEATHS IN BOSTON** for the week ending Saturday noon, May 18th, 63. Males, 27—Females, 36.—Accident, 2—anaemia, 1—inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 1—Inflammation of the brain, 1—bronchitis, 1—cancer, 1—cholera infantum, 1—consumption, 17—convulsions, 3—croup, 3—dropsy, 2—dropsy of the brain, 2—dysentery, 1—epilepsy, 2—scarlet fever, 1—disease of the heart, 1—infantile disease, 1—intemperance, 4—congestion of the lungs, 1—Inflammation of the lungs, 2—marasmus, 1—old age, 2—peritonitis, 2—puerperal disease, 1—rheumatism, 1—scrofula, 2—unknown, 3—whooping cough, 1.

Under 5 years of age, 21—between 5 and 20 years, 6—between 20 and 40 years, 18—between 40 and 60 years, 11—above 60 years, 4. Born in the United States, 44—Ireland, 17—other places, 2.



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CYSTIC OUTGROWTHS OF THE VAGINA.

BY WALTER CHANNING, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

IN the JOURNAL of April 11th, last, Dr. J. F. Noyes, of Waterville, Maine, communicated a case of cystic outgrowth of the vagina. It was soft and elastic, distending the vagina, and protruding from it. Sixteen years ago, during pregnancy, the patient discovered a small outgrowth within and on the front of the vagina. Since delivery it had rapidly increased, producing much suffering and anxiety. It had no connection with bladder or rectum. It was freely opened. The discharge was glairy, resembling in consistency and color thick honey. The cyst was dissected out, and the edges of the wound were secured with silver sutures. Three weeks after, the patient was well, "and considers now the organ in a normal condition." The date of this opinion of Mrs. S. is not given.

Two or three weeks after reading this case, my friend, Dr. J. Mason Warren, told me he had a case of cystic vaginal outgrowth for which he should soon operate, and kindly asked me to be present. Mrs. ——— was four months pregnant. The outgrowth filled the vagina and protruded out of it. It was elastic, smooth, and resembling in color that of the vagina. It was always external when the patient was erect, occasioning much annoyance during walking, from its size, and the weight and friction of the dress. It was neither visico- or recto-cele.

An incision through the vaginal envelope of the cyst was made the whole of its external length. It was then dissected carefully and thoroughly out. The contained fluid very exactly resembled that in Dr. Noyes's case. No sutures were employed; the protruded vagina was put into its place, and a compress applied to prevent its protrusion. In a week, Mrs. ——— was judged sufficiently well to return to her friends in Canada.

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Soon after this case, Mrs. ———, aged 26, called on me with a letter from my friend Dr. Stevens, of Stoneham, asking me to examine her case and to report to him my opinion concerning it. It was stated that Mrs. ——— was in the last week of the eighth month of pregnancy.

Upon examination, I found a large cyst protruding from the external organs. It was bi-lobed, the right lobe was much larger than the left. The whole surface was red, that of the small lobe the most so. It was tender—sore to the touch—which state could be readily accounted for by the weight and constant friction of the dress. In the horizontal position the cyst was much less in size than when Mrs. ——— was up and about. Upon further inquiry, I learned that about six months previous to the time of her call, when about two months pregnant, Mrs. ——— had run some distance very rapidly, and soon after began to feel uneasiness in the vagina. This increased, and at length an outgrowth was felt, and having soon protruded, grew rapidly. Her general health was good. The outgrowth was reduced. A compress and T bandage were applied. Mrs. ——— returned home, with my opinion in a letter to Dr. Stevens, and a wish expressed to see her with him, whenever he would inform me of that being agreeable to him. In a few days, he desired me to meet him in consultation.

Upon reaching the address a meeting was arranged, and it was agreed to open the cyst freely, and discharge its contents, and to wait till after her delivery before doing more. At this time labor was looked for in two or three weeks. A long incision was made through the walls of the cyst. The discharge was a fluid *exactly resembling pure water*, but was found to be distinctly ropy after further examination. The largest lobe of the cyst being emptied, the small one remained distended as before. This was freely opened, the contents exactly resembling what came from the first. The incisions were left open; and a compress and T bandage to prevent the protrusion of the flaccid walls of the cyst, were applied.

After the operation a finger was passed into the rectum, and another into the cyst. The whole length of the finger was firmly pressed into it, before its rectal termination was reached; and I was much surprised, when the ends of the fingers were brought together, at finding how thin was the interposed partition; it seemed not thicker than paper, the interstitial tissue being quite absorbed.

I do not know how it has been with those with whom I began medical practice—and of whom only two are now living—in regard to cystic outgrowths of the vagina; for myself I can say, that these three cases are the only ones of which I have any knowledge as occurring amongst us. I have certainly frequently seen diseases of the vagina; but have no memory of cystic outgrowths before these. A question may arise of diagnosis, how these cysts differ from others of the same organs.



*Pelvic Abscess.*—These at times are very large—fill the vagina. But I have no instance in which they have appeared *externally*. On the contrary, the largest of them occupy most frequently the upper part of the pelvis; and I have met with cases in which most of the abscess has been above the brim. In one of the worst cases, and which was long under my care, the abscess broke, so to speak, into the bladder, and it was long before pus ceased to appear in the urine. The most distress in this case, and for much time in it, was in the bladder—its region and function. Mrs. ——— has completely recovered. In a case which I saw with Professor Simpson, of Edinburgh, the abscess was very large, and filled much of the pelvis. Prof. S. opened it. The discharge was very large, dark-colored—nearly black, and of the most disagreeable odor, obviously getting a part of its character by endosmose. The symptoms aid diagnosis. In pelvic abscess these are very severe; and constitutional conditions are very gravely disturbed. The pain is very severe; the sleep is broken; appetite fails; emaciation I have seen as complete as in phthisis. Danger to life is imminent. The abscess *never* protrudes from the vagina.

There is another form of *pelvic abscess* which may not be so readily distinguished from our cystic ones. Pain and burning in the vagina, dysuria, and embarrassment on motion, with various constitutional disturbances, attend this disease. Upon examination, local swelling, at times quite small and not very well defined, is discovered. After a time it breaks, and pus, with blood, is discharged. The opening closes, and a new abscess of the same character is formed. At times a sinus is made, and a purulent discharge is established. An obstructed follicle may be a cause of these tumors, and inflammation occurs, and forms, and establishes a chronic disease. Now there is no difficulty in distinguishing these from the cystic outgrowths under consideration. They never protrude from the vagina, are small, and the fluid contained differs wholly from what exists in the other disease.

From dislocation of the rectum and urinary bladder they are readily distinguished. By digital examination from the first, and by the catheter from the last.

Dr. ——— called, a few days since, to get a uterine supporter. He selected one. I asked of the case.

Miss ——— for a long time had suffered gravely by disease in or about the pelvis. Much obscurity in the diagnosis. The womb was found prolapsed. Of late, a new symptom—vomiting. Examination discovered the prolapsus. The womb was reduced, and *vomiting immediately ceased*. As long as the finger supported it, no vomiting; nausea and vomiting when the support was withdrawn. Within a few months, a new symptom—sudden and copious discharge of pus from the rectum, with immediate relief of pain, and of vomiting. These symptoms returned after various intervals, viz., pain, vomiting and purulent discharges. Dr. ——— had been con-

sulted, but no discovery was made of the seat of the abscess, or the outlet of the pus. Was it abscess of the womb itself? I said no. What then? Pelvic abscess?

Dr. ——— reported to me a case resembling the above in some of its symptoms, viz., exquisite pain in the left iliac, with swelling, and excessive heat; these, and absolute inability to use the left limb at the time, and slow recovery of the power afterwards. Copious, liquid, easy dejections suddenly occurred. Costiveness had not been a symptom. Immediate relief followed. In this case, so grave was the constitutional disturbance, that recovery was despaired of. The dejections were not examined. Were they not purulent?

*Ovarian Dropsy.*—In some, but very rare cases of this disease, the cyst presses down into the pelvis, forming a fluctuating swelling. A case of this kind came under my notice.

Mrs. ——— was surprised by a copious discharge of a colorless glairy fluid from the rectum, and occurring at distinct intervals. She was desired to collect some of it for inspection. At my next visit she handed me a glass tumbler full of this liquid. It resembled exactly the white of an egg, and had an odor not unlike that substance. In appearance, it exactly resembled that of the third case above reported. There was not the least faecal smell in it. The discharge continued. The ovarian outgrowth grew daily less, and at length ceased. Perfect recovery followed.

It has been suggested, or the question asked, if an opening by the rectum or through the *cul de sac* might not be made in this disease, especially where there is pelvic or rectal enlargement discovered. It is a well-known fact that the bursting of the ovarian sac into the abdomen by violence, falls, or great and sudden exertion, has been followed by rapid recovery. I attended a case of labor, in the subject of which ovarian dropsy had long existed, and for which tapping was to be done. Mrs. ———, while lifting a heavy weight—a washtub, felt something suddenly give way within her. The swelling rapidly subsided, good health occurred, and she became pregnant. She passed through labor and the puerperal state without accident. Many such cases are on record.

The contents of these vaginal cysts differ, and all are unlike those of vaginal, or, more correctly, pelvic abscesses. Their contents are not purulent, and this suffices to show that they are not the products of purulent inflammation. What is the precise or anatomical character of the secreting tissue in this disease, I know not. It is a product of disease, but which obviously is different, or is modified, in different instances.



DR. ROBIN'S MEMOIR ON THE ANATOMY AND PHYSIOLOGY OF  
THE MUCOUS MEMBRANE AND THE EPITHELIUM OF THE  
UTERUS DURING PREGNANCY.

[Continued from page 342.]

THE epithelium which is found in the regions I have just described, is partly formed of *free nuclei* and partly of *cells*; the latter of which very much exceed the former in quantity. In each preparation of the fresh subject we oftener find them closely associated, under the form of little membranous filaments, than isolated. These epithelial cells are to a certain extent similar to those which I have pointed out in the preceding paragraph, and are sometimes more, and sometimes less granular. Some of them, especially those which are hypertrophied, become larger by the half or double their normal state, preserving, however, to a limited degree, the form of the prismatic epithelium, with extremities adherent, sometimes constricted and sometimes distended and rounded. Others have become distinctly polyhedral. In almost all, the nucleus has increased in volume in the same proportion as the cell, and encloses one or two nucleoli, having a brilliant yellow centre, with a deep blackish outline.

But at the same time, between the preceding cells, or in their vicinity, we find cells, whether isolated or closely associated in bits, or layers of greater or less size, which have undergone very considerable and most singular hypertrophy and morbid alteration.

We find there those which, instead of having two or three hundredths of a millimetre ( $\frac{75}{100000}$  or  $\frac{92}{100000}$ ) in size, or thereabouts, as in the normal state, attain one tenth of a millimetre even, and more in length ( $\frac{37}{100000}$ ); and could consequently be perceived by the naked eye, if they had a greater diameter and were less transparent. Between these dimensions and those of the normal state, we find every possible degree of intermediate length. The thickness of these cells rarely exceeds eight or twelve thousandths of a millimetre ( $\frac{32}{100000}$  to  $\frac{45}{100000}$ ), but they are dilated and appear to be from one to four hundredths of a millimetre ( $\frac{37}{100000}$  to  $\frac{150}{100000}$ ) across.

The form of the cells naturally varies a good deal, according as the hypertrophy and the increase of the mass has taken place in one or two directions only (which very often occurs, and is the precise cause of the malformation), the other dimensions remaining normal, or in proportion as the hypertrophy goes on in all directions. In this case, the cells become entirely spherical or spheroidal; but we find few cells which show this form, and their diameter does not much exceed two or three hundredths of a millimetre ( $\frac{73}{100000}$  to  $\frac{92}{100000}$ ).

The greater part of the cells thus distorted and hypertrophied, are elongated and terminated at two ends by a point, generally irregularly truncated, and more rarely sharp and regular. This

elongation frequently takes place on one side only, the other remaining polyhedral or rounded, as if it had been truncated.

It is just at the nucleus of each cell that the largest portion of the latter is found. When they are regular, the cells have a general ovoid, elongated, or better, a fusiform shape, very dilated or clubbed, according as the distended portion continues itself from each side to a point or from one side only.

It is common to find one or two extremities of each cell irregularly bifurcated, and their edges, as it were, cut, or, on the other hand, furnished with one or more prolongations more or less narrow. These prolongations are principally to be seen upon the angles of the cells which remain more or less irregularly polyhedral. They there give very queer shapes to the epithelial cells. The nature of the latter would certainly be then misunderstood, if we should pass judgment upon them without having followed their phases of hypertrophy and distortion through the different periods of pregnancy, and if we had not observed their successive conditions; the different degrees which separate the sufficiently regularly shaped, polyhedral cells, already noticed, from these last, are now and then to be noticed also in the envelope of a fœtus at term, and in the same region of the epithelium of the decidua.

Some of these hypertrophied cells contain two or three nuclei, but this circumstance is rare. The majority have only one, but remarkably voluminous, with a clear, brilliant centre, slightly granular, and having a sharp, regular outline. The nucleus is generally ovoid, as in the normal state, but very much hypertrophied. It almost always attains a length of from twelve to eighteen thousandths of a millimetre ( $\frac{10000}{10000}$  to  $\frac{10000}{10000}$ ), with a breadth of from six to ten thousandths of a millimetre ( $\frac{10000}{10000}$  to  $\frac{10000}{10000}$ ). Each nucleus encloses one or two nuclei, of the size of from one to two thousandths of a millimetre ( $\frac{10000}{10000}$  to  $\frac{10000}{10000}$ ), having a brilliant amber-tinted centre, with a sharp, deep, blackish contour.

The free nuclei of the epithelium, whose presence I have pointed out at the commencement of this description, are similar to those which I have just described. They are manifestly similar, or very analogous with those which have been described and figured under the names of *cancerous*, *carcinomatous* nuclei, &c., and have received this name, without doubt, from those who may have seen them without having followed the phases of their modifications, which I have just described. Here, however, they are normal, but their analogues are to be seen in the epitheliums of most other organs under a variety of morbid conditions.

It is from having formed an opinion upon the anatomical arrangements of this class, before having followed the various phases of the normal and pathological evolution of anatomical elements, that the conclusions with regard to so many of the morbid tissues ought to be reviewed.



I will say, in conclusion, that some of the hypertrophied and distorted cells which I have already described, remain finely granulated, almost as much so as in the normal state. At that time they are very pale, and very transparent. But most of the cells are studded or filled with fatty granulations, having a brilliant yellow centre and a deep outline, such as we so often see in tumors, upon the pathologically hypertrophied epithelial cells. These granulations are generally more numerous about the nucleus which they circumscribe, or at its two extremities, than in the other portion of the cell. Everywhere, when they are accumulated, they render the cell opaque, a condition which is in great contrast to the transparency of the rest of the body. There are some cells in which the granulations form masses quite regular, elegant, and more or less distant from the nucleus, or disposed in chains or in the form of a string of beads, which appear in the body of the cell itself, or in the prolongations of the latter when it has them.

§ 3.—*Of the Principal Modifications which the Epithelial Cells of the Uterus, between the Placenta or the Allantois and the Mucous Membrane of the Uterus, exhibit in some of the Domestic Mammalia.*

During pregnancy, the epithelial cells of the uterus, in domestic and wild animals, show gradual changes, analogous to those which I have pointed out in the human female.

In the cornua of the uterus in the sow, the cells differ, during pregnancy, according to their locality. In the spaces between the points occupied by each ovum, the cells maintain their prismatic state and their nucleus more frequently spherical than ovoid, without a nucleolus. Moreover, they do not retain their vibratile cilia, having lost these at this period.

At the regions where the allantois is applied against the mucous membrane, the epithelium of the latter, as well as many of the cells which remain adherent to the allantois, under the form of a soft, viscous, grizzly coat, are hypertrophied and become tessellated. It is peculiarly interesting to follow the phases of the transformation of the prismatic cells into the tessellated form, by taking the epithelium at points more or less near to the portions of the mucous membrane which are applied against the ovum.

The cells, in reality, appear relatively more and more short and thick; they do not become more granulated, but their nucleus gradually changes from the ovoid form, becomes larger, and acquires a nucleolus, generally as much more enlarged as the nucleus itself increases in size.

In the portions of the mucous membrane which are closely applied to the ovum, the cells which have become polyhedral, but often showing blunt angles, with curved sides, usually reach a diameter of from two to three hundredths of a millimetre (from  $\frac{1}{100000}$  to  $\frac{3}{100000}$  of an inch). Many of the intermediate ones become spherical or ovoid, from which they are isolated each from the other, and freed.

Those which contain two or even three nuclei are furnished with a brilliant yellowish nucleolus. With these cells are found mingled a few free nuclei, similar to those which are found in the cells themselves.

The epithelial cells, which I have just described, whether prismatic or tessellated, form, in the portions which they occupy, a sheath for the vascular papillæ, with which the uterine mucous membrane is furnished in animals. We often find the *debris* of these epithelial sheaths in the uterine mucus or in the grizzly coat interposed between the mucous membrane and the allantois.

These sheaths are easily distinguished from those of the follicles of the mucous membrane of the uterus; for the epithelium of the latter is nucleated, with ovoid nuclei, a little larger than the blood globules in the adult, without nucleoli, and often slightly separated from each other by a minute portion of finely granulated amorphous matter.

In the doe-rabbit or Guinea-pig, or sea-hog, the modifications undergone by the epithelial cells of the uterus during gestation are more interesting than in the sow.

The cells of the mucous membrane which is not in contact with the placenta undergo, in reality, in their own conformation, certain changes, and these differ from that which takes place in the *inter-utero-placental* epithelial cells.

1st. *In the portions of the mucous membrane taken in the intervals between the ova*, the cells usually preserve their prismatic form, except that their thickness may be generally doubled, or even, in some instances, tripled. Their length changes but little. Those of the few whose thickness is quadrupled or quintupled, become cubical or polyhedral, with many faces, and even spheroidal.

From their juxtaposition, they form bits of epithelium of great beauty under the microscope, particularly in the epithelial sheaths of the very vascular villousities of this mucous membrane. These epithelial sheaths, which maintain the form of the villousities, are easy to recognize, and afford an opportunity of observing this epithelium under every point of view.

In each cell, with hardly an exception, hypertrophied or not, are to be seen two, three, four or five nuclei. They are generally contiguous, placed in a series one after the other, in a single row, in the cells little or not at all hypertrophied. Towards the largest part of the cell, there are sometimes two nuclei placed across, below the line formed by the other nuclei. In the cells which are double, triple or quadruple in volume, the number of nuclei may amount to from six to fifteen, or thereabouts. Then they are disposed in two, three or four contiguous ranks, along the length of the cell, or heaped up without order.

In these arrangements, very singular and very different appearances take place in the cells, from what we observed in the unimpregnated state.



These nuclei are always, or almost always, spherical, of from five to seven thousandths of a millimetre ( $\frac{1}{1000000}$  to  $\frac{259}{1000000}$  of an inch), finely granulated and without nucleoli. The bodies of the cells remain finely granulated. These facts, with what follows, may be noticed when the gestation has hardly as yet reached the fifteenth day.

2d. *At the placenta, in the inter-utero-placental*, grizzly, friable coat, of which I have already spoken in the second part of this memoir, the cells exhibit changes different from those which I have just described.

They are entirely hypertrophied and deformed, very much as are the cells of the decidua in the human female, described in the preceding paragraph. Their very structure is more modified even than in the human female; moreover, these cells have not the slightest resemblance to the cells of the mucous membrane of the uterus when empty.

All these cells have taken the tessellated form, but are irregular in consequence of the inequality in the length of the angles which limit their faces; their borders also are often slightly dentated. They attain almost to the dimensions of which I have given the figures in the preceding paragraph, in describing the epithelial cells of the inter-utero-placental decidua, in the human female, with this exception, that the incisions or prolongations of the edges of these cells are more rare in the rabbit than in the human female. Moreover, we find cells isolated or joined together, and in contact with the preceding, which are not much more than half as long and thick as in the empty uterus. They resemble, very remarkably, in form and volume, the cells of the impregnated uterus, taken from the intervals between the ova. They, in like manner as the latter, enclose from three to six nuclei or thereabouts, similar in kind. Moreover, besides the spherical nuclei, we almost always find in the same cell one, two or more nuclei of an ovoid shape, and slightly larger than those which are spherical. Above all, it is near the border of the placenta, that the grizzly coat, the *inter-utero-placental*, shows cells analogous even with those from the space between the ova.

From these last, up to the largest cells, which are also the most irregular, we find every intermediate degree of form and volume, in the majority of cases mingled without order through the different layers of the epithelium.

The largest cells, which are flattened, and scarcely regular, enclose (like the largest of the cells which we find in the spaces between the ova) from six to eighteen and even twenty nuclei. They are contiguous or but little separated, according to their distribution in the body of the cell; almost invariably, there are one or two which have a spherical form, and a size of about six thousandths of a millimetre (about  $\frac{25}{1000000}$  of an inch); but the rest are ovoid, and always of different sizes. It is not rare, actually,

to find in the same cell, nuclei which are from six to eighteen thousandths of a millimetre ( $\frac{225}{1000000}$  to  $\frac{675}{1000000}$  of an inch) in size; but in the majority of the cells, the length of the largest nuclei does not exceed twelve thousandths of a millimetre ( $\frac{450}{1000000}$  of an inch), for the most bulky are ovoid.

There are few nuclei which show a nucleolus. The body of the cells in the spaces between and around the nuclei, is very much granulated. These granulations give to the cells a greyish tint, having but little transparency, when they do not reach a thousandth of a millimetre (about  $\frac{37}{1000000}$  of an inch) in size, and are uniformly distributed. The cells are as much more greyish and deep colored as the granulations are larger and nearer together.

And besides, certain cells are rendered nearly opaque by a multitude of fatty granulations, which may have attained a size of two thousandths of a millimetre even ( $\frac{75}{1000000}$  of an inch), yellow in the centre, with a deep-colored outline. They are scattered, or accumulated about the nuclei, but generally more abundant than those which we see in the analogous cells of the decidua of the human female.

These cells can be detected, under the microscope, in an isolated condition or associated together in fragments of various sizes, or even juxtaposed in hollow strings, suggesting, moreover, the form of the sheaths which cover the villousities of the mucous membrane of the uterus.

In the Guinea pigs, we observe facts analogous to the preceding; but at the surface of the placenta especially, the viscous greyish coat, which is formed from the epithelium, contains many cells which are regularly spherical or ovoid, in the midst of those which are polyhedral and hardly regular. These are from three to seven hundredths of a millimetre ( $\frac{111}{1000000}$  to  $\frac{259}{1000000}$  of an inch), or thereabouts. They contain one or more nuclei, which are particularly noticeable for their enormous volume. We find there some, indeed, which reach twenty-five thousandths of a millimetre ( $\frac{950}{1000000}$  of an inch), and many have an average of fourteen to eighteen thousandths of a millimetre ( $\frac{420}{1000000}$  to  $\frac{666}{1000000}$  of an inch). The presence of two nucleoli is common. They are brilliant and yellow in the centre, and from one to four thousandths of a millimetre ( $\frac{37}{1000000}$  to  $\frac{150}{1000000}$  of an inch) in size.

#### CASE OF PLACENTA PRÆVIA.

BY EBENEZER STONE, M.D.

[Read before the Norfolk (Mass.) District Medical Society.]

ON the 23d of December, 1858, at 9 o'clock, P.M., I was called to Mrs. H. G., aged 33, in the seventh month of pregnancy, with her fourth child. I was informed that she had had slight hæmorrhage, for two or three days, which had now increased on the occurrence



of labor pains. These pains were described as short, feeble, cutting or tearing, and always attended with flooding.

On examination, I found the mouth of the womb but little dilated, with the placenta presenting. There was urgent nausea, with occasional vomiting. The contractions of the womb being slight, and the hæmorrhage at present not urgent, an anodyne was given. She became easy, with little bleeding, and slept most of the night.

On the 24th, she had one or two slight returns of pain, attended as before with nausea and hæmorrhage; but the pain subsided, as on the 23d, and she slept at night.

On the 25th she remained about the same, and slept as usual at night.

On the 26th, at 10½ o'clock, A.M., I was called in haste, on account of flooding.

I found my patient faint, pale, cold and almost pulseless, with nausea and retching. On examination, I found a large part of the placenta in the vagina, the mouth of the womb dilatable, and the head presenting. As the state of the patient would not, at this time, admit of artificial delivery, I administered a dose of ergot, and in a few minutes a strong contraction of the uterus expelled the placenta into the vagina, and all hæmorrhage ceased at 12 o'clock, M.

The patient was now very much exhausted, but as she was free from flooding, and had no labor pains, we endeavored, by the use of stimulants, rest and fresh air, to recruit her strength, and we so far succeeded that her pulse and countenance rallied, when her pains returned and expelled the child dead, at 7½ o'clock, P.M. No hæmorrhage followed the delivery, and I left her comfortable at 9 o'clock, P.M.

She had a good recovery.

This case, as far as it goes, confirms the principle laid down by Simpson, that the complete separation of the placenta arrests the hæmorrhage. In the present case, after the expulsion of the placenta into the vagina, there was for seven and a half hours scarcely sufficient hæmorrhage to stain a napkin.

When I arrived on the 26th, manual interference with the labor was not to be thought of, as the irritation of an examination produced fainting and nausea, with an effort to vomit.

Previous to this time, the state of the mouth of the womb admitted of no interference, with safety to the mother. I was informed that her previous labors had been easy and quick; I therefore judged, that if labor pains were present, the case would soon be terminated, and the result, on administering the ergot, was the expulsion of the placenta and the arrest of the hæmorrhage. We then had time to recruit the exhausted powers of the patient, and the last effort, resulting in the delivery of the child, was well borne.

I thought the case, from its rarity, might be of interest to the

profession. The number of ordinary placenta presentations, in Collins's report, is only 11 in 16,414, and the number of placenta prævia only three in that number.

*Walpole, May 6, 1861.*

## Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE OBSTETRICAL SOCIETY OF BOSTON.  
BY WILLIAM READ, M.D., SECRETARY.

Second meeting, MARCH 2d, 1861. Dr. WALTER CHANNING, President, in the chair.

The President stated that, owing to his not having been able to obtain all the materials which he needed to complete the paper on Puerperal Convulsions he had proposed to read this evening, he would give only an outline of what he intended to present, and would ask for the experience of the gentlemen present in regard to the question how far anasarca and albuminous urine were connected with convulsions?

Dr. COTTING remarked that the cases he had seen were anasarca only, and not tumid. In one case the patient was a delicate woman, who had an excessive flow of urine for three or four months previous to her confinement. The urine was albuminous. The convulsions were controlled by chloroform. In the same patient, at another pregnancy which occurred after an interval of three years, ether was used.

Dr. PUTNAM had seen cases of convulsions where there was no anasarca. There was no examination of the urine.

In regard to the examination of the urine, Dr. COTTING said it was not easy to procure enough for this purpose at the time of the fit, when there was great liability of an admixture of mucus and the discharge from the vulva. In the cases he had referred to, natural delivery took place three or four hours after the fit. The first child lived, the second died. Albumen was detected in the urine for three or four days subsequent to the delivery. In one case which he saw many years ago, where the convulsions took place after delivery, he bled the patient.

Dr. WELLINGTON said he had had two patients, in the last two years, in one of whom there was great anasarca and great secretion of albuminous urine for three or four months previous to delivery, but no convulsions, although they had been anticipated. The patient was very anæmic after labor, but has since entirely recovered. In the other case, the urine was not albuminous, nor was there any anasarca, but the day after labor she had a convulsion, which, upon the evidence of those in attendance, he considered to be puerperal. In two other cases in which artificial labor was resorted to, both patients died. He would remind the President of a case seen with him eight or ten years ago, in which, after all other remedies had been tried without success, an assafetida enema procured immediate relief. In this case there was dislocation of the lower jaw several times during the convulsions.

Dr. PUTNAM thought it was a matter of great doubt whether any-



thing was gained by hastening the labor in cases complicated with convulsions. His decided opinion was against such a course.

The PRESIDENT said that there was another important question connected with this subject—How far convulsions were connected with the contractions of the uterus? He believed that they coincided to a certain extent.

Dr. CRANE's experience did not lead him to the belief that there is a general correspondence between the anasarca state and puerperal convulsions. He thought that strong, robust women were more inclined to fits, while weak, delicate, and pale women were more likely to have good labors in this respect, although they got up slower.

Dr. C. D. HOMANS stated that he had seen eight or ten cases of puerperal convulsions, all of which were in what might be termed delicate women. In one of the cases there was anasarca.

The President asked if any gentleman had seen puerperal convulsions more than once in the same patient.

Dr. COTTING said he had, but in one instance only, which he had already referred to. It had been his fortune to see in consultation, in the course of a single month, four cases of convulsions. The patients were all of them Irish, and had been through three or four hands before they came under the charge of the physician who sent for him. In these the delivery was effected three times by perforation, and once by the forceps. There was no anasarca noticed in these cases.

Dr. SARGENT asked whether albumen is ever found in the urine of nursing women?

Dr. COTTING said he thought albumen might be present in an appreciable quantity in the urine in a variety of diseases, where at present it is not suspected. He expressed a hope that this matter might be taken up, and some one would undertake to determine whether albuminous urine is peculiar to certain diseases, or whether it is not, to a certain extent, always present when diseased action is going on in the system.

A general discussion then ensued upon the effect of tying the placental end of the umbilical cord, as a means of expediting the delivery of the placenta. In the course of the debate, the following cases were related, by the President, showing the length of time that the foetus can remain after birth without respiration by the lungs.

While attending the midwifery lectures of Dr. Chapman, of Philadelphia, he placed under the care of Mr. John Shelbys and myself, the case of a black woman in labor. It was in summer. The case advanced very naturally, and the child and placenta were born. The child did not breathe; but as the cord beat strongly, we waited for breathing to occur naturally. Then artificial respiration was tried, but ineffectually. The cord continued to beat; a tub of warm water was procured, and the child and placenta were immersed in it, except the head. But there was no breathing. At length there was a gasp, and soon after regular respiration was established, the cord cut, &c. The child did well. Buffon's experiment of immersing the whole body of the young of a quadruped in warm water, and so excluding them from the air, occurred to us, and the success of the experiment so far as preserving foetal life, and for some time, was remembered, but our case was not one for such a trial.

The important question arises—How long was it from the birth that foetal life continued in our case? I cannot tell. The interest in the

case was so great that the question of time was not thought of. It is, however, clear that a good deal of time must have elapsed, for much and many things were done, and the situation of the family caused delay in whatever was attempted. The warm water was to be got. Before anything was done, was delay. The placenta was to come away, and then artificial breathing occupied much time, for the life of the child seemed to depend upon its establishment. What attracted my notice was, that no hæmorrhage occurred from the uterine surface of the placenta. Does not this fact raise a question as to the common opinion of the mode of connection between the placenta and womb? And again, how was the blood purified in this child? Or, what is done by the placenta with the blood which is carried from the fœtus back into the placenta?

Dr. Chapman considered this one of the most remarkable cases of continued life under the circumstances, and thought, from our account of what was done before breathing began, that between one and two hours must have elapsed.

Let me allude to another case. I was called to Mrs. —, stated to be in labor, and some distance from the house. Upon reaching the address, I found Mrs. — in bed, and asked of her state. She said she had been suddenly delivered without any assistance.

Where is the child? asked I. On the floor there. I looked round, and sure enough there was a mass, but as much resembling a child as would have any other moderately filled bag. Blinds and curtains of the windows were closed. Upon stooping down, I found that active movements were being executed by the enclosed. It was then the *unborn* child, with waters, membranes and placenta, which was lying before me. The membranes were broken, the waters discharged, and the liberated child in full roar, as if happy to find itself in its new quarters.

*Note by the Secretary.*—With regard to the question of suspended respiration in new born children, Dr. T. Gaillard Thomas, Physician to the Bellevue Hospital, New York, in a lecture on this subject, reports that in one case three quarters of an hour elapsed before breathing was established, twenty-five minutes having passed before the slightest appearance of respiration showed itself. He also quotes five other cases in which a successful result was gained after an interval varying from fifteen to forty-five minutes. The longest time occurred in a case where the mother, with the intent of infanticide, *had buried her child in the earth*. In the case reported by Dr. Thomas, the mother had “uræmic convulsions of the gravest character,” for more than seventeen hours, and was finally delivered by the forceps.—(*N. Y. Jour. Med.*, May, 1860.)

### Bibliographical Notices.

*Hand-book for the Military Surgeon; being a Compendium of the Duties of the Medical Officer in the Field, the Sanitary Management of the Camp, the preparation of Food, &c.; with forms for the requisition of Supplies, Returns, &c.; the Diagnosis and Treatment of Camp Dysentery, and all the important points in War Surgery: including*



*Gunshot Wounds, Amputations, Wounds of the Chest, Abdomen, Arteries and Head, and the Use of Chloroform.* By CHARLES S. TRIPLER, A.M., M.D., Surgeon United States Army, and GEORGE C. BLACKMAN, M.D., F.R.M.S., Professor of Surgery in the Medical College of Ohio, Surgeon to the Commercial Hospital, St. John's Hospital, &c. 16mo. Pp. 121. With an Appendix, pp. xlii. Cincinnati: Robert Clarke & Co. 1861.

THIS is a timely book, the forerunner, probably, of many of its class which the exigency of the times will call forth. It meets in itself, however, most of the wants of the present hour. It has the recommendation, also, of being written principally by an experienced surgeon of our own Army, his contribution being the substance of the lectures which he has delivered for the last three years in the Medical College of Ohio. Three important and valuable chapters are from the pen of Prof. Blackman, who also arranged three of Dr. Tripler's lectures from the notes which his official duties at head quarters compelled him to leave unfinished. The chapter on the use of chloroform is borrowed from Macleod's work on the Crimean war.

This is a most useful book, and our volunteer surgeons cannot get possession of it too soon. The first two chapters, on the duties of army surgeons in organizing field hospitals, military hygiene, &c., meet at once the very first questions which will be raised by a novice in taking the field. Dr. Tripler gives a concise account of the course which has been adopted in the United States Army in these matters. All the minute details of the amount of rations supplied to the troops—what articles of diet the surgeon may substitute for them in certain cases—the daily routine of his duties and those of his subordinates, and what those subordinates are, in hospitals and in the field—the number of tents assigned to him and their various arrangements—the special duties of the march and the battle-field, in all their details are clearly and methodically given, so that a surgeon new in the service sees at once what his work is.

In the chapter on military hygiene some important and startling facts are mentioned, such as we were not fully prepared for; such, for instance, is the statement that in the Mexican war "the relative losses of the volunteers and regulars of the old army from disease were as 4.7 to 1; the deaths, 6.3 to 4.7"; a result which Dr. Tripler considers entirely unnecessary and due "simply to ignorance of the laws of health on the one hand and the constant observance of them on the other." Volunteers, also, he says, are not subjected to the rigorous examination which recruits for the army are compelled to undergo, and consequently are admitted to the service very often, when as recruits they would have been rejected. In this chapter on hygiene the subjects of ventilation, cleanliness, and the proper position of camps are thoroughly treated in the most practical manner. Particularly valuable at the present time, when our troops are already complaining of, and, if the accounts are true, suffering from, improper food badly cooked, are the numerous recipes copied from Soyer, based on his Crimean experience, for preparing a variety of cheap and nutritious dishes for soldiers' use. Dr. Tripler's remarks with regard to the unrestrained use of water for drink by troops when on the march, are very judicious; also what he says of the use of stimulants. These, it appears, do not form a part of the army rations at the present time, except "upon a march, upon fatigue duty, and upon the fron-

tiers." "In cold or wet weather, on guard or fatigue duty, on the march, or whenever unusual exertion is to be made, I am persuaded that the use of brandy or whisky is beneficial. Their protracted use, however, will be found prejudicial to the health. Brandy is the most exceptionable in this respect. Whisky is much less so."

The diarrhoea and dysentery of camps are next treated of, and much valuable information is given, based on the experience of our armies. The various casualties of active service follow, and the work concludes with the chapter on the use of chloroform. A very valuable Appendix is added, which contains full lists of all the articles which are supplied to Army surgeons—the instruments, apparatus, the drugs and the quantities of each in proportion to the number of the troops, formulæ for the official returns and receipts of the surgeons to the quartermaster, &c. In short, the whole volume is eminently practical and fitted for the present moment. We notice some errors of the press, which we suppose are attributable to the haste with which the book has been issued. But we cannot be so charitable to such Americanisms as "*ax*" for axe, "*center*" for centre, "*hight*" for height, and the like, which we cannot suffer to go unchallenged, wherever we may meet them. Crosby & Nichols have the book for sale. Price one dollar.

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*A Manual of Military Surgery, or Hints on the Emergencies of Field, Camp and Hospital Practice.* Illustrated with wood-cuts. By S. D. GROSS, M.D., Professor of Surgery in the Jefferson Medical College of Philadelphia. Philadelphia: J. B. Lippincott & Co. 1861.

THE publication in the present crisis of a book on military surgery from the pen of so distinguished a surgeon as Dr. Gross, is, to say the least, most opportune. The little book before us does not profess to teach all that is known on this subject, but is intended rather as a handbook for the military surgeon, which he may always have by him, whether in the camp or in the field, for consultation. It is essentially, as the author remarks, "a book for emergencies, portable, easy of reference, and always at hand." We regret that we have not space at present to more than advert to its publication. Originally intended for the pages of the *North American Medico-Chirurgical Review*, we think Dr. Gross has done a public service in allowing it to appear in its present form, which places it within the reach of those who stand most in need of its practical teachings.

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*The Theory and Art of Bread-making. A New Process without the aid of Ferment.* By E. N. HORSFORD, Rumford Professor in Harvard University, Cambridge. Pamphlet, pp. 30. Cambridge: Welch, Bigelow & Co., Printers to the University. 1861.

THE title fully describes this little brochure. It is a condensed scientific treatise on the important art of making bread; and if the wisdom it contains could make itself appreciated by those to whom the responsible duty of preparing our daily "staff of life" is entrusted, it should be bound in imperishable covers and become a household book with every family. It is fully illustrated with excellent wood-cuts, showing on a large scale the intimate structure of wheat, grain, bran, &c., and concludes with setting forth the advantages of Prof. Horsford's new method of making bread, with full directions for the practical application of it. For sale by A. Williams & Co.



*Our Alma Mater Fifty Years Ago.* An Oration delivered before the Alumni of the College of Physicians and Surgeons of Columbia College, March 14, 1861. By THOMAS W. BLATCHFORD, A.M., M.D., Troy, N. Y.

THIS was an address delivered by Dr. Blatchford at the spring commencement of the College, it being its fifty-fourth anniversary. The subject selected was in good taste, and its treatment, if we may employ an architectural phrase, has been remarkably successful. Free from the common places which too often characterize such productions, the orator has furnished a most useful and entertaining sketch of the early history of the college, as illustrated by brief notices of its distinguished founders, among whom are ranked those whose names are imperishably connected with the history of American medicine.

## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, MAY 30, 1861.

INSPECTION OF THE VOLUNTEERS.—This is a very important matter at the present time. Too much care cannot be taken that no recruits shall be allowed to enter the service without the most rigid examination; and no one should be passed who has the least physical infirmity, or germ of disease, which the hardships of a campaign are likely to develope into serious causes of disability. The want of thoroughness or strictness in the examination of volunteers, has heretofore been a serious cause of disease in our service. Apart from the actual loss of effective force which sickness entails, it is a serious discouragement to any body of soldiers, particularly to volunteers, to have a large number of their comrades inmates of the hospital. The examination of recruits for the regular service is very strict. Dr. Tripler states that in 1852, of all applicants for enlistment, there were rejected 13,338, while there were enlisted but 2,726—only 17 per cent. of the men offering. In the case of the volunteers who recently hastened to Washington to save the capital, such an inspection could not, of course, have been required. They sprang to arms in the emergency of the moment, and all minor considerations were properly disregarded in the accomplishment of so important a result. But the case is different now, when men are being enlisted, with due deliberation, for the whole war. These should be subjected to as rigorous an inspection as those who offer for the regular army. We make these remarks because we have been told, we hope incorrectly, that men with *hernia* have been allowed to enlist. This should not be. Among the applicants in 1852, according to the authority quoted above, 314 were rejected on account of this infirmity. It is better that such men should be rejected at once, than that they should be subjected to the mortification and disappointment of being sent home by an army surgeon, after being mustered into the service of the United States.

BEQUESTS OF N. I. BOWDITCH, ESQ.—In a recent number, we noticed the decease of this lamented gentleman, and referred to some of  
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the acts of charity and kindness by which during his life he gladdened so many hearts. His generosity did not cease with his life, but still lives in the blessings which his judicious bequests will continue to bestow. Since writing the article referred to, we have learned that he left the sum of five thousand dollars to the Massachusetts General Hospital, as a permanent fund, the interest of which should be expended in the purchase of artificial legs for those unfortunate persons who may hereafter suffer amputation in that institution. Two thousand dollars are left for the purpose of reprinting the valuable and interesting history of the hospital, written by himself. The sum of forty-three hundred dollars is left in small legacies to nurses, attendants, and former inmates of the hospital, in whom Mr. Bowditch became interested while a trustee, and seven hundred dollars a year in annuities to five persons of the same class. Truly, his memory will long be blessed.

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ARSENIC AS A REMEDY FOR CHRONIC DIARRHŒA.—Some three years ago, my friend Dr. Foster, of Cincinnati, mentioned to me that he had seen surprising results in a case of chronic diarrhœa, from the use of very small doses of Fowler's solution. I lost no time in testing its powers. The first case in which I employed it was one of an old friend, a general officer in the army, who was the subject of a debilitating and harassing diarrhœa, contracted in Florida many years since. He kept it somewhat in check by the constant use of astringent and anodyne draughts. I gave him five drops of the solution a day, in divided doses, with the result of procuring an undisturbed night's sleep for the first time in several months, and his complete recovery in a few weeks. I have since employed it in several cases, and always with more benefit than any other remedy I have ever used.—*Hand-Book of Military Surgery*, by CHAS. S. TRIPLER and GEORGE C. BLACKMAN.

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DEATH OF DR. REESE.—We learn from an obituary notice in the *American Medical Times*, that Dr. D. Meredith Reese, a name familiar to the profession throughout the country, died on the 13th of the present month. We extract the following from the notice alluded to:—

"Dr. Reese was born in Maryland, about the year 1800. He graduated in medicine at the University of Maryland, March 26, 1819, his inaugural thesis being *De Mania Religiosa*, and settled in practice at Baltimore. He passed through the epidemic fever which devastated that city in 1819, and wrote a 12mo. pamphlet upon it soon after its disappearance. He was afterwards appointed 'Professor of the Institutes of Medicine and Surgery and Medical Jurisprudence in the Washington University of Baltimore,' and subsequently held professorships in the Albany Medical College, New York, and the Castleton Medical College, Vermont. It was about this time that Dr. Reese took up his residence in New York. He acquired so much professional and political influence as to be appointed Resident Physician at Bellevue Hospital, a position which he retained for several years, until the office was abolished in 1849."

He subsequently edited an edition of Cooper's *Surgical Dictionary*, and afterwards engaged in private practice, and commenced the publication of a medical journal, which has continued till the present time.

"Dr. Reese was one of the original members of the Academy of Medicine, and drafted its first constitution. He always took a deep interest in its affairs, was seldom absent from its meetings, and entered heartily into its discussions.



He was a ready and fluent speaker, a good debater, familiar with parliamentary rules, and often succeeded in carrying his point by the skilful use of this knowledge. At the meeting of the American Medical Association held at Nashville, Tenn., in 1857, Dr. Reese was elected second Vice President." \* \* \* \* \*

"As a writer, Dr. Reese was widely known, not only in medicine, but in politics, religion, &c. He wielded a rapid and vigorous pen; but he was neither happy in the choice of his subjects, nor in the manner of treating them. His arguments were too often specious, his style inflated, and his illustrations inapt. He exhibited an almost total want of power of discriminating the true character and motives of men, and was thus frequently led to attack with great vehemence the best members of the profession, and attribute to them motives which a generous mind would scorn to entertain. This unfortunate peculiarity brought him in constant and unfriendly collision with his professional brethren, and completely nullified his influence. His most useful papers were his reports to the American Medical Association, the last of which, on Medical Education, is replete with mature and well-digested views of this all-important subject."

THE GEORGIA AND AMERICAN MEDICAL ASSOCIATIONS.—At the recent annual meeting of the Georgia Medical Association, holden at Atlanta April 10th, among other items of business, the following preamble and resolutions, reported by the Committee on the relations of the Association with the American Medical Association, were unanimously adopted:—

That while this Association acknowledges no abatement of its zeal for the advancing intelligence and success of the profession—to whose interests it is devoted—and contemplates no abandonment of the high code of ethics and the conventional courtesies which have so long governed and distinguished the ranks of regular medicine; yet, the circumstances by which we are now surrounded, not only authorize, but require the disruption of long existing ties as indispensable to the maintenance of harmonious action and the continued progress of the great principles to whose destiny we are pledged; therefore,

1. *Resolved*, In the opinion of your committee, the great political revolution which has sundered the *National* ties that have bound us as a part of a Confederate Government of Independent States for three-fourths of a century and spread deep disaffection far and wide through the two sectional divisions of the late "Union," constitute ample and sufficient cause—such as will be sanctioned at the impartial bar of the scientific and professional world—for the prompt and entire disruption of the bonds by which we have been heretofore united to the American Medical Association, and we hereby recommend that they be forthwith dissolved.

2. *Resolved*, That whatever may be our grievances as a people—and we hereby declare them to be deep, and in their results upon us abiding—we suffer them not to *control* us in this decision, but declare it to be the calm and deliberate action of those who are desirous to receive the highest moral and scientific results contemplated by this Association.

3. *Resolved*, That we hold ourselves in readiness, as the organized representatives of the Medical Profession of the great State of Georgia, to unite with our sister States of the Confederate States of America, in the formation of a new professional organization for the *South*, upon the same broad and generous principles which we have been ever disposed to honor and maintain, and which shall still continue to meet our warm approval and hearty concurrence.

4. *Resolved*, That in accordance with the foregoing preamble and resolutions, this Association will be no longer represented in the American Medical Association, and hereby declares *its complete and final separation from that body*.

It was also subsequently

*Resolved*, That the secretary communicate the secession action of this body to the various State medical organizations within the limits of the Confederate States, and invite their attention thereto; and also to consider the propriety of organizing a Southern Medical Association.

MESSRS. EDITORS,—I desire to correct a few misstatements in my evidence at the Healey trial, as published in your issue of May 2d. They occur in the second sentence on page 283, which makes me affirm that the method employed by Dr. Hayes is not the best, and that I know of no authority for those tests; both these statements are erroneous, as will be evident to any chemist. I testified that the process employed was not the *usual* one (that of M. Staas). As to the reliability of the method employed, I believe it to be one of the best, and one that would be most likely to succeed for the detection and elimination of strychnia in the tissues. The tests employed by Dr. Hayes not only include those sanctioned by the highest authority, but many others of minor importance, which the large amount of strychnia extracted from the stomach rendered possible.

The remaining errors being of less importance than the above, I will pass without correction.

Yours respectfully,  
6 Tremont St., May 23d, 1861.

DAVID M. BALCH,  
*Analytical and Consulting Chemist.*

REMOVAL.—The office of the MEDICAL JOURNAL will hereafter be found at No. 334 Washington Street, up stairs. The building in which the JOURNAL has been published ever since its commencement in 1828, and where also the *Medical Intelligencer* which preceded it was published, is soon to be taken down for the purpose of widening the street. The situation of our new quarters will be found in some respects much more desirable than that of the ancient and crowded place which we leave, and it is hoped that it may, as that has been, for a long series of years be resorted to by the patrons of the JOURNAL and the profession generally. In looking over the files of the JOURNAL preparatory to removal, we find many extra copies, some of them containing articles contributed from time to time by physicians in various parts of the country. The authors of such articles can obtain one or more of these copies gratuitously, by an early application at the office.

#### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, MAY 25th, 1861.

##### DEATHS.

	Males.	Females	Total.
Deaths during the week, . . . . .	28	45	73
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	31.7	34.9	66.6
Average corrected to increased population, . . . . .	..	..	73.94
Deaths of persons above 90, . . . . .	..	..	..

##### Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
17	1	2	10	1	0	0	1	2

##### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	30.124	Highest point of Thermometer, . . . . .	69°
Highest point of Barometer, . . . . .	30.396	Lowest point of Thermometer, . . . . .	38°
Lowest point of Barometer, . . . . .	29.824	General direction of Wind, . . . . .	E. & S.W.
Mean Temperature, . . . . .	57° 19'	Am't of Rain (in inches) . . . . .	0.000

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 729.

BAROMETER.					THERMOMETER.			RAIN.	Mean Amount of Cloud 0 to 10.
7 A.M.	2 P.M.	9 P.M.	Height.	Mean.	7 AM	2 PM	9 PM		
Monday, May 13,	28.94	29.08	29.20		45	54	47	0 hours, 100 minutes.	5
Tuesday, " 14,	29.31	29.30	29.27		49	66	60		
Wednesday, " 15,	29.30	29.27	29.34		47	55	48		
Thursday, " 16,	29.44	29.41	29.41		49	62	49		
Friday, " 17,	29.49	29.44	29.39		47	65	58		
Saturday, " 18,	29.56	29.26	29.24		54	63	60		
Sunday, " 19,	29.18	29.11	29.12		60	70	61		

DEATHS IN BOSTON for the week ending Saturday noon, May 25th, 73. Males, 28—Females, 45.—Accident, 1—apoplexy, 1—congestion of the brain, 2—disease of the brain, 1—inflammation of the brain, 2—bronchitis, 1—cancer, 3—consumption, 17—convulsions, 1—croup, 1—cyanosis, 1—debility, 3—diphtheria, 2—dropsy of the brain, 2—scarlet fever, 2—typhoid fever, 1—malformation of the heart, 1—infantile disease, 1—intemperance, 1—disease of the liver, 2—disease of the lungs, 1—inflammation of the lungs, 10—measles, 1—neuralgia, 1—old age, 1—paralysis, 1—peritonitis, 1—premature birth, 1—puerperal disease, 1—suicide, 1—teething, 1—tetanus, 1—unknown, 5—whooping cough, 1.

Under 5 years of age, 26—between 5 and 20 years, 7—between 20 and 40 years, 16—between 40 and 60 years, 17—above 60 years, 7. Born in the United States, 44—Ireland, 21—other places, 8.



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REMARKS ON GUN-SHOT WOUNDS.

BEING THE SUBSTANCE OF A LECTURE DELIVERED SOME YEARS SINCE AT THE MASS.  
MEDICAL COLLEGE.

BY GEORGE HAYWARD, M.D.,

LATE PROFESSOR OF SURGERY IN HARVARD UNIVERSITY.

[Communicated for the Boston Medical and Surgical Journal.]

GUN-SHOT wounds are produced by obtuse bodies, generally of a metallic nature, projected by fire-arms. They have usually the form of punctured wounds, and their surfaces are always contused. It is of course impossible that they should heal by the first intention. Suppuration must take place, and there is always danger that the inflammation will be excessive.

So great is the sloughing that is ordinarily produced by wounds of this character, that for some time after the invention of gun-powder, it was supposed that the mischief arose either from the parts being burned, or from the balls having been poisoned.

It is now well known, that however great may be the velocity of the balls, they do not acquire any perceptible degree of heat, and it is also well understood that there is nothing poisonous in the ingredients of which gun-powder is composed. The severe injury which is produced by musket balls, is attributable to their obtuse form, and the great velocity with which they are thrown. These are sufficient to produce a violent contusion and laceration of the injured parts.

As more correct views are now taken of the nature of these wounds, so also a more correct method of treating them has been adopted. For this we are in part indebted to the celebrated Ambrose Parè, whose practice was much less severe than that of his predecessors; but Mr. Hunter must also be regarded as a great reformer on this subject, as well as in most others connected with surgery.

According to him (and no one who has given the subject the

slightest attention can doubt the propriety of the distinction), gun-shot wounds will vary according to the kind of body which is projected and which produces the wound, the degree of velocity with which it is projected, and the nature and peculiarities of the injured part. The bodies that produce the wound are, for the most part, musket balls, though it is sometimes caused by cannon balls, or pieces of shells, and, on board of ship, by splinters of wood. Even when it is produced by musket balls, the injury is occasionally very much aggravated by the foreign bodies which are carried by them into the wound. Pieces of cloth are often driven in by the balls, and great mischief is sometimes caused, when the bone is fractured, by some of the splinters.

When the velocity of the ball is small, the injury, on several accounts, is not likely to be so severe as when it is greater. The contusion and general violence done to the soft parts are less, and the bones, too, are not so likely to be fractured. But if the velocity of the ball is merely sufficient to fracture the bone, it is more apt to be splintered than if the velocity had been very great; for in this case the ball passes directly through the bone, and, as it were, takes a piece out of it. But this, after all, depends very much upon the resistance which the bone makes to the ball, the hardest bones being the most frequently splintered.

If the same extent of injury be produced by two balls, moving with different degrees of velocity, the wound made by the ball with the greater velocity will require the longer time to heal. This can only be accounted for on the supposition that the parts are more contused in one than in the other case, and that consequently the sloughing will be greater. It is said that when a ball passes through a part, the orifice at which the ball comes out will heal sooner than that at which it enters; it having lost some of its velocity in its passage, it cannot, of course, inflict so great a degree of injury.

Gun-shot wounds are more or less severe according to the parts which are injured. Those affecting the external integuments and muscles are the least important; those which are complicated with injury or fracture of the bones more so, and those are the most serious which penetrate some of the larger circumscribed cavities. These last also are of two kinds; one of which merely penetrates the cavity, and the other in which some important viscus contained in it is injured.

Gun-shot wounds, from the degree of contusion that always attends them, do not usually bleed much, unless some large artery is cut off. The amount of hæmorrhage, however, is very different in different cases, owing to the manner in which the wound is produced. If the artery be cut directly across, and this be done by a ball that is moving with great velocity, it will bleed freely; but if it be bruised and in some degree torn, it will bleed much less. It occasionally happens that though the bleeding may be trifling



at the time of the accident, it comes on profusely some time after. This arises from the injury which has been done to the artery, producing a sloughing of its coats, and the separation does not take place till several days after the wound has been received. The deadened parts are usually detached from the sixth to the fifteenth day after the receipt of the wound, and the greatest danger of hæmorrhage is consequently between these periods. The patient should, of course, be carefully watched till this has taken place; it may occur in the night, and if proper measures have not been adopted, he will bleed to death before any aid can be afforded him. If the hæmorrhage proceed from an internal artery, nothing, of course, could be done; but if it be one in either of the extremities, there would be no difficulty in controlling the bleeding at the time, and the vessel could be afterwards tied or the limb be amputated, as the circumstances of the case might seem to require.

The direction of gun-shot wounds is sometimes very singular, owing to the strange course which the ball takes. When the velocity of the ball is small it is easily diverted from its course, the soft parts alone are then sufficient to do this. There are other circumstances also that have an influence on its course; such as its form and direction, the position and the nature of the parts through which it passes; or, in other words, the degree of resistance it offers to it. Many curious cases are related of the direction which balls have taken, some of them passing nearly around the body, and coming out almost at the same spot in which they entered. Balls have been known to enter the integuments, over the os frontis, and go round the cranium to the occiput. The same thing has been met with in the thorax and the throat.

No credit is now given to the opinion that was once entertained, that the body can be seriously injured by the wind of the ball. Contusions often take place, which were attributed to the commotion produced in the air by the rapid motion of the ball through it. They were also attributed to electricity, supposed to be generated by the violent friction of the ball in the bore of the gun, and communicated by the ball to the injured part. But there is no foundation for this theory, for metallic substances do not become electric by friction. The truth is, that these injuries, which are frequently called wind contusions, are caused by the ball itself. They may arise from the oblique direction in which the body is struck by the ball, or the circumstance that it is not struck at all till the ball is spent.

In the *treatment* of gun-shot wounds of the extremities, the first thing to be decided is, whether the operation of amputation must be performed. If the muscles and other soft parts be extensively torn and contused, if the bone be shattered, the joint opened, the principal artery and nerve of the limb divided or seriously injured, and the limb itself cold, no doubt can exist as to the expedi-

ency of amputation, and delay would jeopard the life of the patient. But there are frequent cases of much less severe injury, where it is not so easy to come to a decision as to the propriety of an operation, and in which the exercise of great coolness and good judgment is required to arrive at a correct opinion. It often happens, from the very nature of the wound, that the extent of the mischief is not known at the time of the accident, but when the sloughing process has separated the dead from the living parts, it will be found, that if the limb could be preserved it would be useless, and that the attempt to do it would endanger the life of the patient.

In doubtful cases we must be guided by the particular circumstances of each case, and the constitution of the individual. No general rule can be laid down that would be applicable to all.

When there is no doubt as to the propriety of amputating, the operation should not be done while the system is in a state of languor and depression, before it has recovered from the shock of the accident; but it should not be delayed after reaction has taken place. This usually happens in from two to six hours after the receipt of the injury; it is indicated by a change in the countenance, by the subsidence of the nervous symptoms, by the pulse, which before was rapid and small, now becoming firm and moderate, and by the coming on of the pain of the wound. The experience of the best military surgeons has shown, that patients who are in this condition have a good chance of recovery. In fact, Mr. Guthrie says, that "he will recover in the proportion of nine cases out of ten in any operation on the upper extremity, or below the middle of the thigh, without any of the bad consequences usually mentioned by authors as following such amputation."

There can be no doubt, that much of the fatality that ensues after amputation from gun-shot wounds, is attributable to the want of discrimination in the surgeon; in not examining, and not attending to, if he does examine, the particular condition of each patient. Many unquestionably lose their lives, because the operation is performed before reaction has come on; when the nervous system is depressed, the circulation languid and feeble, and the skin cold. In this state, any addition to the causes of depression must prove fatal, and yet how frequently are limbs amputated while the patients are in this state!

When amputation is not deemed necessary, the next inquiry is as to the proper dressing to be applied to the wound. In this respect, a great improvement has taken place in modern times, by which the sufferings of the patient are materially lessened and his chance of recovery much increased. The first step towards improvement was made by Ambrose Paré, and may be truly said to have been the result of accident. Up to this time, it was the universal practice, from a belief in the poisoned nature of gun-shot wounds, to dress them with burning oils.



These boiling oils were applied for the purpose of deadening the parts still more, and in this way prevent the action of the poison, with which the wound was supposed to be impregnated.

Parè accompanied the French army into Piedmont, and was with them at the siege of Turin. Many of the soldiers were wounded, and his mind being impressed with the belief of the poisonous character of the wounds, he dressed them in the barbarous manner then in use. "At length," he says, for I give you a translation of his own words, "my oil being expended, I was compelled to use instead of it a digestive liniment, composed of the yolk of eggs and the oils of rose and turpentine. But I did not sleep well that night, fearing that I should find in the morning those, whom I had dressed with this liniment, dead from poison. I rose therefore very early and visited them, and found, contrary to my expectations, that they had slept well, been free from pain, and that their wounds were neither swelled nor inflamed. But those in whom the boiling oil had been applied, were feverish, and in great pain, and the neighborhood of their wounds much swollen. I determined then that I would never burn again, in the cruel manner that I had heretofore done, the poor fellows who should be wounded with fire-arms."

A circumstance of this kind was not lost on a man like Parè; it taught him a lesson to which he is indebted for his success in practice, and for the reputation which he has enjoyed. He learned from it the value of mild dressings in cases of gun-shot wounds, and he thus spared his patients much unnecessary suffering, and had also the satisfaction of seeing the wounds heal much more rapidly. But though this was a vast improvement, whether we regard the comfort or safety of the patient, we are indebted to Mr. Hunter for another, and that is, the strong reprobation which he gave of the indiscriminate dilatation of gun-shot wounds, which was practised till his time.

It was thought that by doing this, the wound could be converted into an incised one, and a freer exit, at the same time, afforded to any foreign substances that might have been forced into it. But the character of the wound is not changed by an incision, and in consequence of the contusion and sloughing which it occasions, the wound is much larger than the ball which produced it, and a free passage is thus given to the matter or other extraneous bodies it may contain. These and other considerations led Mr. Hunter to the conclusion that dilating gun-shot wounds, "as a general practice, should be rejected at once, even," he adds, "were it only for this reason, that few gun-shot wounds are alike, and therefore the same practice cannot apply to all."

This indiscriminate dilatation of those wounds is wholly at variance with our practice in all other cases, which is, that nothing of importance should be done to wounds in their first stages, but

to promote, if the circumstances of the case will admit of it, union by the first intention. It is generally admitted now, that gun-shot wounds should only be dilated when there is some plain and beneficial object to be accomplished by it.

It is no doubt proper to extract, as early as possible, as many foreign substances as can be removed without causing great violence to the parts and giving the patient much pain. By so doing, a great source of irritation is removed; the nervous symptoms will probably be less severe; the inflammation that supervenes will not run so high, and the suppuration will be less profuse. But these foreign bodies are only to be removed when they are near the orifice of the wound, and are easily come at; and it should be recollected that much searching for them produces a great degree of irritation in the wound. When they cannot be removed without this, they should be allowed to remain, unless they are pressing on some important nerve, or artery, or organ, whose functions cannot be disturbed without producing dangerous symptoms. But if this should not be the case, they should be left to the natural processes, and they will probably be thrown out when the sloughs separate, or when the suppuration is well established. It should be recollected, too, that a smooth, round body, like a bullet, will often remain in the body without producing any inconvenience, and lead is said to be less irritating than any other foreign substance. It is therefore by no means necessary to attempt, in every instance, the extraction; it may be suffered to remain, if it cannot be easily removed, and does not incommode the patient.

From the nature of gun-shot wounds, it is, of course, not to be expected that there can be union by the first intention. A tedious process must be gone through with before the healing can be accomplished. The deadened parts must separate from the living, and the wound must be healed by suppuration and granulation. If an extremity be the injured part, and the bone be badly broken, all the loose splinters must be carefully removed, should it have been decided that amputation should not be performed, as they produce a great degree of irritation, and add very much to the danger of the case. If there should be any considerable bleeding, which is not a very frequent occurrence, the vessel must be tied at once. The limb should be laid in a splint, a mild dressing applied to the wound, and the whole of the limb should be covered with an eighteen-tailed bandage. The dressing may consist of simple cerate on dry lint; and the accident should, in fact, be managed very much in the same way as a compound fracture.

Some linen cloths should be placed under the bandage, and these should, for the first few days, be kept constantly wet with a lotion of the acetate of lead or cold water. All military surgeons of the present day are of opinion that these cold applications are of great service in preventing the inflammation from becoming ex-



cessive, and it is fortunately a remedy that can be obtained under all circumstances.

They are also equally agreed in condemning the use of tight bandages, or anything that shall compress the limb. It is believed that mortification has frequently been induced by the improper manner in which the wound has at first been dressed. The bandages should be tight enough only to keep the dressings in place, and great allowance should be made for the swelling that usually comes on. The limb should be placed, if possible, in a position comfortable to the patient, and be allowed to remain at perfect rest.

In young, robust and healthy persons, when the shock of the accident has not been great, and the system does not seem to be depressed by it, and much blood has not been lost, it will be proper to take some blood from the arm, if the pulse be good; on the contrary, stimulants should be administered if there be symptoms of great depression and languor, and venesection, if done at all, should be deferred until reaction has taken place. Even when general blood-letting is not admissible, the application of leeches to the neighborhood of the wound is often highly useful in allaying the inflammation, and the same treatment may be adopted for this purpose as was recommended when treating of inflammation.

Usually, at the expiration of twenty-four hours, swelling and the other inflammatory symptoms come on in the part, accompanied with a constitutional affection of a febrile character. In cases of fracture, the cold lotions may still be continued a few days longer; but where the bone is not broken, the pledget of simple cerate or the dry lint, as the case may be, should be removed, and a mild poultice applied, and in fact this is the best application in every instance, after suppuration has commenced.

It is necessary to administer gentle saline cathartics occasionally, and to give opium, if the pain be severe. The diet must be varied according to circumstances. During the inflammatory stage, it should consist wholly of vegetables, and those of the mildest character. But when the suppurative process is established, the system requires support, and animal food of a digestible kind may be allowed.

Should mortification take place, notwithstanding all these precautions, amputation should be performed at once, without waiting, as was formerly done, for the line of demarcation to be established between the dead and living parts. You may recollect that I stated, when treating of mortification, that it was not necessary to do this, in those cases of mortification that came on from accidents.

The suppuration is usually in proportion to the extent and violence of the injury; and in cases that are going to terminate favorably, it gradually diminishes, after the sloughs have separated, the cavity fills up with healthy granulations, and the bone, if it has been fractured, becomes firmly united.

But gun-shot wounds do not always take so favorable a course; it sometimes happens that the secretion of pus is excessive, and that all the means that are employed for the purpose are of no avail in checking it. The consequence is that the system becomes enfeebled, the patient is wasted, hectic fever and night-sweats come on, and a fatal termination is threatened. It requires great judgment to determine how long an attempt shall be made to save the limb without putting at hazard the life of the patient. The state of the limb, as to the extent of the injury, may aid us somewhat in coming to a decision; for we should be much more ready to amputate, if the limb was so much injured that it could be of but little use to the patient, if he should recover, than if the wound was such, that there was a prospect of restoring the part to its former usefulness.

It frequently happens that a cannon ball carries off a limb, and a question arises, what is the surgeon to do under such circumstances? Nearly, if not quite, all army surgeons of the present day, would recommend immediate amputation of the stump, after reaction has taken place. In this case you have a clean cut surface, instead of an irregular contused one, and the stump consequently will heal much better. The muscles, from the very nature of the accident, are torn in the most irregular and unequal manner, and the delay of the operation endangers the life of the patient.

You will thus perceive that gun-shot, are to be treated on the same general principles as all other wounds, and that there is no foundation for the opinion that they have a specific character, which requires a peculiar mode of treatment. They are merely contused wounds of an aggravated kind, owing to the velocity of the body by which they are produced, and their great depth, when compared with their external opening. There is another circumstance which frequently increases their severity, and that is, that foreign bodies are often carried in by the ball, as cloth and other articles of the dress of the individual who is wounded.

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#### MECHANICAL APPLIANCES.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—I was consulted some time since in a case of perfect uselessness of the right leg from a former affection of the knee-joint. The patient had walked on crutches for twenty years. Of late she had begun to feel a numbness in the hands and a weakness in the arm, evidently from the effect of the crutch pressing upon the axillary plexus of nerves. This was a serious matter to her, as her needle was her means of livelihood. My opinion was sought as to whether the knee was in such condition as would enable it to support the weight of the body, if an artificial limb could be adapted to it. There had been much disorganiza-



tion and displacement of parts by the old disease; the patella was pushed aside, the ligaments greatly absorbed, and the tibia partially dislocated. Nevertheless, the present condition of the parts seemed perfectly healthy, and there was no tenderness. I therefore encouraged the hope that a good support would be furnished by the end of the femur when the leg was flexed. A few days since, I saw the patient, and found her walking without crutches, and with great ease. Acting upon the assurance I had given her, she had applied to Messrs. Palmer & Co., who had fitted an artificial limb for her on their plan, but with certain modifications to suit the case. When walking, the real but useless limb is flexed or projects behind at a right angle—which, however, the happy use of crinoline entirely conceals, and the artificial one takes its place as a support, flexing at a joint just below the real knee. When sitting, the natural limb drops down just behind the artificial one, which is somewhat hollowed to receive it.

I consider this case well worth mention, from the trouble the patient was experiencing in the increasing pain and weakness of the arms, and the numbness of her fingers—which, had it developed, would have incapacitated her from her daily occupation. This trouble has now ceased entirely. The use of crutches with her, and I find with many others, produces severe fatigue of the chest, and in this particular this person has experienced great benefit. She mentioned incidentally, that at one house where she staid, she ascended seventy steps to her room without fatigue or inconvenience. In a male case, the same adaptation could be made, but in such an instance amputation might be desirable to remove the inconvenience and ungainliness of the useless and supernumerary limb.

W. E. C.

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#### CASE OF CYANOSIS.

##### SINGLE VENTRICLE; PULMONARY ARTERY STRICTURED AT ITS ORIGIN.

ANTOINE LAUSADET, born on the 14th March, 1852, was admitted into the Hospital on the 15th, where he remained until the 30th of the same month, at which period he was given out to nurse in the Department of the "Clarente Inférieure." The notes taken by the Inspecting Physician as to the child's condition, at the time of admission, could not be found. The nurse reported that the infant, during the whole time she had charge of it, never kept its bed, although its health seemed to demand it. After the least fatigue, and especially after walking, its lips and hands became blue, and it appeared oppressed. This condition augmenting from day to day, she was compelled to see the Inspecting Physician, who sent the child to the Hospital on the 11th May, 1859. The notes of this physician pointed out that the child was suffering under aneurism.

At its admission into Hospital, the child was submitted to our examination. It was seven years of age, large enough, height 3 feet 3 inches, skin fine and white, hair flaxen, eyes blue, temperament lymphatic, of delicate constitution, and slightly developed muscular system, especially in the lower extremities. His appearance was mild, docile, and of timid expression, intelligence ordinary. The skin of the face was deeply tinted blue; the depth more marked on the lips, eyelids and ears. The feet and hands were cold and of a livid blue, especially the fingers and toes which were long, slender, and thickened at their extremities; the nails presented the olive-shaped conformation. This blue tint disappeared nearly entirely for a while after long repose, and chiefly in the morning; but it became more marked during digestion, coughing, walking, or cold, to the latter of which the child was peculiarly sensitive. The little patient seemed pleased with his bed, in which he always doubled himself up, the knees to his chin.

The chest, thin and contracted superiorly, was remarkable for its sternal projection. There was well-marked dulness in percussion, not extending below the level of the fifth and sixth ribs. The pulsations of the heart, violent and tumultuous, were easily perceptible. Auscultation afforded a dull bruit (*brouissement* sound) around the region of the heart. It was difficult to determine whether this sound preceded or followed the first of the heart sounds, which were obscure and apparently confused. He felt pain in the same region, which occasionally impeded his respiration, and which always preceded the attacks which we shall shortly mention. A distinct bruit de souffle was heard in the carotids; the pulse was small, frequent, and irregular, from 90 to 100 in the minute.

The respiration was short, cough frequent with distinct dyspnoea. Auscultation of the lungs yielded nothing of importance, except an acceleration of the inspiratory movements from 30 to 32 per minute. Two or three times a day he experienced a sensation of suffocation with extreme dyspnoea, and a hard and fitful cough. The face became completely blue, and asphyxia seemed imminent. The pulse then became filiform or thready and hard, beating 110 or 120. After the attack, which usually lasted five or six minutes, and which ended in yawning and sobbing, he experienced an undefinable uneasiness, lasting at least half an hour. The attack was always foretold by the patient, who felt, as we have stated, a severe oppression in the præcordial region ending in insensibility.

The headaches became frequent, and were always severe after the attacks. There was but little appetite, but digestion usually perfect. His voice was feeble. He seemed to avoid exercise, remaining willingly all the day seated on a chair or his bed. His extremities had a marked tendency to coldness, the temperature of his body, even, being lower than that of a child of the same



age; thus the thermometer placed in the palms of the hands, in the armpits, and under the tongue, gave for five days the following results.

Date.	Temperature of Air.	Temp. of the room.	In the hand.	Thermometer placed in the armpit, under tongue.		Pulse.	Respiration.
June 16	55.4	60.8	96.8	98.6	100.0	108	31
17	53.6	59.9	97.7	99.5	102.2	106	33
18	59.7	62.6	95.0	96.8	99.5	102	32
19	55.9	60.8	96.8	97.7	100.4	101	31
20	53.6	59.0	94.1	95.0	99.5	96	30

(In the original paper the degrees are given in the centigrade scale. In the above table we have reduced them to Fahrenheit.—Ed. B. A. J.]

The foregoing results approximate closely to those of Doctors Farre, Tupper, Nasse, and Hein, in analogous cases.

The dyspnœa, the cough and the attacks of suffocation became more and more frequent, and the child became gradually weaker. Dr. Gintrac, Director of the School of Medicine, and Dr. Bitot, a Colleague at the Hospital, saw the child, and having examined him with great care, admitted thoroughly the nature of the disease and its symptoms.

In the month of September he could scarcely move himself; the least effort produced attacks of suffocation, which of themselves became more frequent, especially towards the evening. The headache persisted, the cough was almost continual, and the emaciation progressed. His senses became weakened, the skin became dry and rough, the pulse more and more frequent, 105 to 115 and thready; his appetite failed, diarrhœa supervened, the voice became weaker, and the perception of sounds less acute.

During the month of October, these symptoms still further increased, the little patient became confined to his bed entirely; the excretion of urine and fæces became involuntary, the œdema of the lower extremities increased, the cough became more frequent, the pulse almost imperceptible, and the heart movements weaker.

On the 10th November, he contracted measles, under which the patients in the two adjoining beds were suffering. The cough and dyspnœa augmented considerably, and on the 18th of the same month, about 2, P.M., the little patient gently expired.

The treatment adopted in the case was palliative. We contented ourselves with sustaining the patient's strength by a suitable regimen, and retaining round his person a uniform temperature. The cough and attacks of suffocation were combated by sedatives and gentle antispasmodics.

A necropsy was made twenty-six hours after death by Mr. Cuillé, Interne of the Children's Hospital, in presence of M. Le Barillier, Chief of the Medical Staff, and M. Bruny, Interne of the Foundling Hospital.

*External appearances.*—Little cadaveric rigidity, skin blueish color, especially marked in the extremities, lips and nostrils, emaciation considerable, the muscular and osseous system little deve-

loped; œdema of lower extremities, the veins of all parts gorged with dark and thick blood, especially the jugulars.

*Head.*—The veins of the meninges of the brain, the vertebral arteries, the internal carotids, were distended with blood of a violet color. The brain itself was firm, and on cutting it by slices, the white substance was found studded with innumerable red points.

*Thorax.*—Lungs healthy, but small and collapsed. The thymus gland was very large. I do not remember having seen it so large, even in an infant born before time. The pericardium contained from one ounce and a half to two ounces of a yellow colored serosity.

*Heart.*—Walls thick, filled with black blood and fibrinous clots, as well as the origin of the large vessels. Having been removed and carefully measured, it yielded the following dimensions:—

From the apex to the base of the heart,	2.44 inches.
Transverse diameter,	2.08 "
Circumference of ventricular portion at widest part,	29.92 "
From the uppermost part of the ventricle to the centre of the base anteriorly,	2.52 "
From the uppermost part of the ventricle to the centre of the base posteriorly,	2.12 "
Distance in a straight line between the right and left extremities,	1.97 "

There was no median furrow either anteriorly or posteriorly, nor was there any sloping of the upper part of the heart.

The ventricular portion was cut through longitudinally. There was found no interventricular septum.

The thickness of the ventricular wall was considerable. The columnæ carneosæ were numerous and very powerful.

The pulmonary artery arose from the right extremity of the ventricle, with which it communicated by a narrow opening; the sigmoid valves presented nothing worthy of notice. The calibre of the artery was however less than usual. The aorta was dilated. It arose from the centre of the single ventricle, between the right auricle which was much dilated, and the left auricle which was rather contracted. The right auricular ventricular opening was larger than usual, but its valves presented neither ossification nor hardness. The arrangement of the venæ cava superior and inferior, and the pulmonary veins, presented nothing worthy of note. The foramen of Botal was obliterated, as well as the ductus arteriosus.

*Abdomen.*—The abdominal viscera presented nothing worthy of note, the liver only being larger than in the usual normal condition. The abdominal veins were slightly injected.

This case is singular on several accounts. Cyanosis, notwithstanding the praiseworthy labors of MM. Gintrac, Lewis and Ferrus, is still imperfectly understood. Two opinions are now



entertained, the one which attributes the disease to the mixture of two bloods (Corvisart and Gintrac) and the other which regards it as due to an interruption to the circulation of greater or less magnitude. (Ferrus, Louis, and Grisolle.) Facts seem in favor of the opinion entertained by Gintrac, in an interesting paper by him.\*

In this paper or memoir Mr. Gintrac has collected 53 cases of cyanosis exhibiting anomalies of the heart and great vessels.

The case, now narrated, closely resembles cases 5 and 6 of that memoir, but differs in having but a single ventricle. The conformation of the heart of reptiles has been rarely observed in man, and it ought to produce in him certain phenomena of the peculiarities of the life of that class of animals, and especially the want of calorification and consequently a tendency to coldness.

The mixture of the two bloods and the complete want of oxygenation are inevitable, and appear, in this case as well as in three other ones observed, to be the chief cause in producing the cyanosis. We also agree perfectly in the following opinion which Mr. Gintrac expresses in the memoir or paper alluded to.

"That organic lesions of the principal circulating vessel do not constitute nor determine of themselves the Blue Disease, but that the immediate and essential cause of this affection consists in the alteration of the course of the dark blood and its introduction into the arteries." He adds a little further on, "That this alteration in its course should occur there must exist, independently of organic alterations of the heart structure, either in its organization or the mode in which the junction of the two fluids is effected, some obstacle opposing its free course in its natural channels. Then the equilibrium which ought to exist between the two sides of the heart becomes destroyed, regularity of the circulation is at an end, and the venous blood mixing itself in varying proportions with the arterial, alters more or less its purity and color, and transports throughout the organism all the disastrous influences of this disorder and deterioration."

In fine, the disease known under the name of Cyanosis, and characterized by the group of symptoms which we have pointed out, is the production only of a mixture of venous with arterial blood. If in some cases, in which the foramen of Botal has continued open, this disease has not shown itself, it is because this mixture has not taken place; on the other hand, any arrest, whether permanent or temporary, of the arterial or venous circulation, is of itself incapable of giving origin to the symptoms characteristic of this affection.—*British American Journal*, from *Journal de Bourdeaux*, January, 1861.

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\* Observations et recherches sur la Cyanose ou maladie bleue.—Paris, 1824.

## Reports of Medical Societies.

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EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL  
IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

MARCH 25th, 1861.—*Deafness following Mumps.* Dr. BETHUNE said he had been consulted by a man, who, three months ago, had mumps on both sides, followed by orchitis. The mumps terminated by sloughing of the parotid gland, and was followed by otorrhœa. Ten days before Dr. B. saw him, he had some pain about the head, and the next morning he became totally deaf, and has remained so ever since. The man appeared to be “run down.” In the parotid regions were deep cicatrices. There was no evidence of cerebral trouble. He was ordered generous diet, alcoholic stimulants, and a blister to the back of the neck. His general condition had much improved, but there was very slight amelioration in the state of the hearing.

A similar case was reported to the Society in 1841, by Dr. Holmes. The patient was a boy, eight or nine years old, who became deaf four days after the beginning of an attack of mumps. The hearing was not restored five months afterwards, when “loud sounds, like the report of a cannon, he could hear, but not common sounds.”

MARCH 25th.—*Softening of the Heart as a cause of sudden Death.* Dr. ELLIS reported the following cases of softening of the heart.

CASE I. The patient was a large, robust-looking man, 57 years of age. He had been much depressed by misfortunes in business, but, notwithstanding, enjoyed very good health until about six weeks before his death, when he was suddenly attacked with severe pain and a sense of stricture across the front of the chest. This lasted but a short time, when he felt as well as ever. He continued to have similar attacks occasionally, but of such short duration that it was thought useless to send for a physician. In the morning of the last day of his life, being again attacked, he sent for Dr. Cotting, of Roxbury, but on his arrival came forward and said that he would find nothing the matter with him, as the paroxysm had passed away. On examination, nothing unusual was found in the chest, the heart pulsating regularly, and with its normal frequency. In the evening, he sat up and played chess until nearly midnight, fearing another attack. He was troubled by pain through the sternum, and oppression about the chest, from midnight until four or five o'clock in the morning, when he died. His wife left him standing, while she went to procure something in another part of the room, when he was observed to slide into a chair and thence to the floor. A neighboring physician was sent for, who pronounced him dead. He had never been confined to the house.

The organs were all healthy, except the heart, which was flaccid, of a dull red color, and so soft that it broke down under the traction used in its removal. It could be perforated with the greatest ease on pressing it between the thumb and finger. The layer of fat had encroached upon the wall of the right ventricle, the muscular substance of which was very thin.

On microscopic examination, the transverse striæ of the muscular substance were found to be very indistinct, and the fibrillæ had a somewhat granular appearance, but contained very few if any of the globules which are usually found in well-marked cases of fatty degeneration.



CASE II. This patient was a convict in the State Prison, 29 years of age. Dr. Bancroft, the physician of the prison, stated that he had had several attacks of faintness, or dyspnœa, which attracted but little attention. Finally, on the day of his death he ate his dinner as usual, returned to the workshop, seated himself, fell as in a fainting fit, and died.

On examination of the brain, and all the other organs, nothing abnormal was found, except in the heart, which was of a dull-brown color, and perforated with the greatest ease by compressing it between the thumb and finger.

The record of the microscopic examination was not made at the time, but the appearances were probably the same as those in the previous case.

CASE III. Dr. AINSWORTH gave the history of the case.

A gentleman, 79 or 80 years old, regular and temperate in his habits, and previously healthy, began, about six months ago, to have pain in the region of the sternum, at intervals, after exertion or excitement, without acceleration of the pulse, or apparent obstruction of the circulation, and without physical signs of disease in the heart or lungs. The attacks became more severe, more frequent, and of longer duration, lasting 15 or 20 minutes. The evening of March 23d, he was as well as usual at 10 o'clock, and took some cider and water, to relieve a craving for acids. He went to bed and slept; but at 3, A.M. he was seized with a very violent paroxysm, which he was aware was the precursor of death. He was groaning, pale, cold, pulseless and covered with sweat. He had a small dejection, and tried ineffectually to vomit. He died in less than an hour from the beginning of the attack.

Dr. ELLIS gave the following account of the autopsy:

The head was not examined. The lungs were somewhat œdematous, but in other respects healthy. The substance of the heart was light-colored, and quite soft, yielding very readily to pressure between the thumb and finger. One of the coronary arteries was ossified, but pervious. On microscopic examination, the striæ of the fibres were found to be very indistinct, but there was no well-marked deposit of fat. The spleen was very soft, and resembled a mass of loose, recent coagulum. The kidneys had a decidedly granular appearance, but this was partly owing to the red and white mottling of the surface. On microscopic examination, the tubuli were found to be filled with granular matter and minute fat globules. The other organs were sufficiently healthy.

Dr. Ellis remarked that these cases were reported for the purpose of showing at least an apparent connection between softening of the heart and sudden death. They are to be carefully distinguished from those in which disease of various kinds, or fatty degeneration, has given rise to the change. Förster, in his "*Specielle Pathologische Anatomie*," states that a diminution of consistence is met with in many cases of atrophy, in purulent pericarditis, in typhoid and puerperal fever, scurvy, and as a cadaveric change. It is not very marked in any of these cases, and is not caused by any essential textural change, and is in itself unimportant. That which results from fatty degeneration and inflammation of the substance is more important, since the change may be so great as to give rise to rupture.

Old and recent authors describe a specific process under the name

of softening of the heart, but all the cases cited may be included under one of the above-mentioned categories. The majority were found in cases of putrid typhoid, in the puerperal state, or in scurvy; and the accidentally relaxed, discolored and softened hearts were supposed to have exerted an important influence upon the symptoms. But all these observations are in the highest degree doubtful. Bouillaud, Rokitsansky and others, know nothing of such a specific softening."

Our cases are certainly different from any alluded to above. The patients were of various ages, and one of them only 29. None of them were laboring under other acute disease, and the change was certainly not the result of decomposition. The microscopic evidence of fatty degeneration was wanting, but the appearances were decidedly abnormal.

It is therefore highly important that the subject should be farther investigated, and the result may be that the term *angina pectoris* will be even less used than at present.

Dr. JACKSON observed, that softening of the heart was by no means peculiar to old age. He had seen a marked case of it in a child who had died of some acute disease. The most complete specimen of fatty heart he had ever seen came from a sheep, which had exhibited no symptoms of disease before being slaughtered.

APRIL 8th.—*Obstinate Vomiting terminating in Death—Disease of the Kidneys.* Dr. ELLIS reported the following cases:—

CASE I. The patient, an unmarried woman, 24 years of age, was under the care of Dr. Windship, of Roxbury. She had always been subject to what were called "bilious turns." Her last illness commenced eight weeks before her death. During this time, the prominent symptoms were almost constant, acute burning pain in the renal and hepatic regions, great constipation, loathing of food, continued nausea, and frequent vomiting of the small amount of sustenance she was persuaded to take. After the passage of two biliary calculi, which occurred during the third week, the nausea abated for a day or two, but it then returned, and continued until a few hours previous to her death. The only relief from pain and nausea, was for a few hours after copious emesis. The urine was once examined and found normal. She died on February 10th, 1861.

*Autopsy.*—Head not examined. Lungs and heart normal. The liver was lighter colored than usual, and fatty, the cells being distended by a large number of fat globules. The stomach contained some dark brown liquid, but the mucous membrane was normal. The intestines showed no signs of obstruction. The ileum was opened in several parts, and found to contain a thick, reddish liquid. The kidneys were lighter colored than usual, and their tissue had a coarse appearance. Still, the change was not very marked to the naked eye, and the existence of disease could not have been positively declared without the aid of the microscope. With the latter, however, the tubuli were found to be crowded with minute fat globules. Other organs normal.

CASE II. The patient was a nurse, 47 years old, who had been under the care of Dr. Mason, of Brighton. In the latter part of November, she experienced an uncomfortable sensation in the epigastrium, "like that of food falling into the wrong place," as she expressed it. Soon after, she was confined to her bed with what appeared to



be pleurisy. After being under the care of her physician in Brighton for a month, she fell into the hands of a "clairvoyant," who pronounced her disease to be a dryness of the mucous membranes. The bowels were much constipated. Five weeks before death, Dr. Mason took charge of her. She was then troubled with constant vomiting, neuralgic pains and numbness. Bismuth, and a pill of conium and valerianate of zinc, were prescribed, but the first pill was immediately vomited with great distress, and for three weeks nothing whatever was retained. She was seen in consultation by Dr. Jacob Bigelow, but no positive opinion could be arrived at concerning the nature of the disease. There was no tumor nor other unequivocal sign of cancer. In about three weeks, the disposition to vomit was much less, though she always vomited several times a day, principally thin, yellow fluid, no blackish matter being ever seen. Three days before her death, she became violently delirious, and was only controlled by ether. During the last four weeks, she was much troubled by a sore mouth and tongue. The urine was not examined.

At the examination, nothing remarkable was noticed in connection with the brain, except that the subarachnoid fluid was more abundant and the sulci wider than usual. The left lung was universally adherent, the false membrane being from half a line to a line in thickness, and not old. The inner surface of the stomach was covered with a layer of tenacious, white mucus. Some cadaveric softening of the large extremity, but no other lesion. Intestines, externally, normal. The liver was lighter colored than usual, and fatty, the cells containing many fat globules. The capsules of the kidneys were removed with unusual ease. The organs themselves were of the ordinary size, but more flaccid than usual. The cortical substance was of a light brown color, coarse and loose. On microscopic examination, the tubuli were found filled with minute globules and granules, and probably diseased epithelium, as a large number of free cells were seen, shrunken, deformed and granular. In the cones there was much healthy epithelium. Other organs normal.

In neither of these cases was there any suspicion of disease of the kidneys, but in both there was a remarkable correspondence between the symptoms, or at least the most prominent one, vomiting, and the anatomical change.

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## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

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BOSTON: THURSDAY, JUNE 6, 1861.

ANNUAL MEETING OF THE MASSACHUSETTS MEDICAL SOCIETY.—In consequence of the distraction occasioned by the war, as well as of the absence of the usual solace of cold salmon and lemonade, the Fellows of the State Society did not come up on their annual pilgrimage with that alacrity that has hitherto marked this great Æsculapian feast. We do not remember to have seen at any annual meeting for many years so meagre an attendance. Notwithstanding, however, the lack of numbers, there was fortunately no corresponding deficiency in interest in the proceedings. The meeting took place at ten o'clock at

the Marlborough Chapel, the President, Dr. John Homans, in the chair. It appeared from the record of the Secretary that forty-three persons had joined the Society since the last annual meeting, and fifteen had deceased. The papers presented were, one on zymotic diseases, by Dr. E. Cutter, of Middlesex East District; and one on the relief of pain by subcutaneous injections, by Dr. A. Rupper, the reading of which was deferred in consequence of the absence of the author.

Dr. Lincoln exhibited an enormous tumor, which had been recently removed at a post-mortem examination from the abdomen of a male patient under his care, a full report of whose case will shortly be published.

Among other items of business the following resolutions, presented by Dr. Jarvis, of Dorchester, setting forth the importance of the formation of a sanitary commission, were adopted:—

*Resolved*, That the Massachusetts Medical Society petition the Legislature for the establishment of a Board of Health of vital statistics, for the following purposes:—

First, To have the general oversight of the sanitary interests of the Commonwealth, as the Board of Education and Agriculture have over the interests intrusted to their supervision.

Second, To have charge of the registration law of births, marriages and deaths, and to prepare the annual report.

Third, To have charge of the State census, and to make the decennial report.

Fourth, To have authority to visit all the public medical and sanitary charitable institutions in the Commonwealth and elsewhere, which receive patients from this State, and make a general annual report of their condition to the Legislature.

*Resolved*, That every member of the Medical Society be requested to use his influence with the Senators and Representatives from his district to persuade them to support this measure in the Legislature.

*Resolved*, That the several district societies be requested to take action in behalf of this measure, and use their efforts for its adoption.

Drs. J. G. Metcalf, George C. Shattuck and George Choate were appointed a committee on scientific communications.

At one o'clock the annual address was delivered by Dr. Henry C. Perkins, of Newburyport. The subject was the Duty of the Physician and Surgeon on the Day of Battle or in War, and we much regret that the orator could not have had a larger audience to profit by his practical teachings. At its close, on motion of Dr. Hunt, of Middlesex, seconded by Dr. Spofford, of Essex, it was voted that the thanks of the Society be presented to Dr. Perkins for his "eloquent, patriotic and appropriate address."

At the meeting of the Councillors which took place on the evening previous, thirteen only out of seventeen district societies were represented. The usual business was transacted, consisting of the Reports of the Treasurer and Standing Committees, and the appointment of the Standing Committees, and election of officers for the ensuing year. From the report of the Treasurer Dr. A. A. Gould, it appeared that the outsets of the Society during the past year had been \$18,327 20, and the income \$17,190 55, leaving a balance of \$1,136 65 due the Treasurer. In accordance with the vote of the Council last year, the sum usually devoted to an annual dinner is to be devoted to the payment of the debt; added to which, the interest on the legacy of \$10,000 will greatly diminish it.

The officers of the last year were re-elected. Dr. Henry J. Bige-



low was chosen anniversary chairman, and Dr. Henry I. Bowditch was appointed to deliver the next annual address.

On the whole, our medical anniversary, notwithstanding the absence of the important part usually performed in Faneuil Hall, passed off with credit to all concerned. We trust, however, at the close of another year, that the clouds which now threaten us will have rolled away, and that at our next annual meeting the sunlight of peace shall again have dawned on our land.

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At a late meeting of the Boston Society of Natural History, Dr. J. C. White exhibited a mouse whose head was almost entirely covered by large masses of the parasite fungus *Achorion Schoenleinii*.

The growths formed dry, yellowish crusts resembling in shape kernels of popped-corn. Nothing of the head was visible with the exception of the ears and mouth. This animal was one of twenty or thirty caught during the past three months in the seed store of Curtis & Cobb, in this city, nearly all of which have had more or less of the same appearance. Even the young have exhibited it, when they belonged to mothers similarly affected. They were all killed by a cat. As is well known, this parasitic plant is the cause of the disease upon the human scalp known as *Favus*, which is characterized by the appearance of crusts exactly similar to those seen upon the mouse, and by the loss of hair. These crusts consist of minute sporules and sporangia, that is, the reproductive portion of the fungus, together with a slight growth of the mycelium. These spores coming in contact with the scalp of a child, whose head is not well cared for, attach themselves to the epithelium, or find a lurking-place in the hair follicles. There they rapidly reproduce themselves, distend the hair sacs, press upon the roots of the hair, and finally, entering into its substance, produce a discoloration and brittleness, which causes it to break off at a short distance above the surface of the scalp. This process repeats itself indefinitely if unchecked, causing general baldness, and large unsightly formations of a bad odor. The plant may also grow upon the skin of other parts of the body; but there, failing to find a lodging-place so secure as the hair follicles of the head, is easily removed, and never forms crusts of any considerable size. When seated on the scalp, it can only be cured by pulling out all the affected hairs. Its infectious nature may be proved by transplanting it from one person to another. It is, fortunately, a disease of rare occurrence, less frequently seen than the other vegeto-parasitic diseases of the scalp. Whether the disease belongs naturally to the mouse or to man, we have no means of determining; he believed it had never been observed upon any other animals than the mouse and cat.—*Proceedings of Boston Society of Natural History.*

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A PATHOGNOMONIC SIGN OF SCARLATINA.—For some years past, M. Bouchut (*Journal of Practical Medicine and Surgery*) has been in the habit of pointing out in his wards a curious sign which assists in the discrimination of scarlatina from measles, erythema, erysipelas, &c. It consists in a vascular phenomenon, proportionate in intensity to the extreme contractibility of the capillaries over the part of the skin in which the eruption exists, by pressure with the nail. We refer to the enduring *white stripe* produced at will by drawing the back of the nail or any other hard substance upon the exanthematous surface, producing a white streak, which lasts one or two minutes, and sometimes more. Figures may thus be traced upon the skin, the lines of which are conspicuous from their whiteness. With a blunt probe or pen-holder, the diagnosis of the disease may be distinctly inscribed on the integument, and after a minute or two the word *scarlatina* disappears, when the uniform tinge of the eruption again invades the written surface.

This phenomena is observable in scarlatina only. The scarlet hue of measles is not uniform, the eruption consisting of mottled patches, with very slight elevations separated by interstices of healthy skin. In measles, the procedure we have described would produce an alternately red and white streak, enduring a much shorter time than in scarlatina. In erysipelas, in the redness induced by a mustard poultice, in solar erythema, the white line we allude to is not visible; and without attributing to this sign an undue degree of importance, it may be said to supply one more element in the determination of the characters of the eruption of scarlatina.—*Med. and Surg. Reporter.*

NEW MEDICAL WORK.—We learn that a work on *Placenta Prævia*, comprising its history, physiology and treatment, by Dr. William Read, of this city, is soon to appear. From the character of the papers by the same author on kindred subjects, the forthcoming book will be looked for with much interest. It is to be printed under the auspices of the Massachusetts Medical Society.

The disarrangement of materials in moving the Journal Office, has caused a delay in the issue of the present number. We hope hereafter to be punctual in sending out the numbers on the day of publication.

#### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, June 1st, 1861.

##### DEATHS.

	Males.	Females	Total.
Deaths during the week, . . . . .	40	37	77
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	37.0	34.2	71.2
Average corrected to increased population, . . . . .	..	..	79.04
Deaths of persons above 90, . . . . .	..	..	..

##### Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumonia.	Measles.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
10	3	2	4	0	0	0	0	0

#### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	29.866	Highest point of Thermometer, . . . . .	82°
Highest point of Barometer, . . . . .	30.618	Lowest point of Thermometer, . . . . .	41°
Lowest point of Barometer, . . . . .	29.110	General direction of Wind, . . . . .	S.W.
Mean Temperature, . . . . .	60° 6	Am't of Rain (in inches) . . . . .	0.8

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 720.

BAROMETER.					THERMOMETER.					RAIN.		Mean Amount of cloud, 0 to 10.
7 A.M.	2 P.M.	9 P.M.	Mean Height,	Point, Highest	Lowest	7 AM	2 PM	9 PM	Mean Height,	Time 15 minutes.	Mean sure.	
Monday, May 20,	29.18	29.35	29.47		45	46	49					
Tuesday, " 21,	29.55	29.53	29.53		49	60	55					
Wednesday, " 22,	29.53	29.40	29.26		50	68	61					
Thursday, " 23,	29.28	29.20	29.24		59	74	66					
Friday, " 24,	29.26	29.21	29.23	29.255	60	72	68					
Saturday, " 25,	29.33	29.25	29.07	29.55	69	73	70				0.83	0
Sunday, " 26,	28.86	28.80	28.81		72	80	59					

DEATHS IN BOSTON for the week ending Saturday noon, June 1st, 77. Males, 40—Females, 37.—Accident, 6—disease of the bowels, 1—inflammation of the bowels, 1—congestion of the brain, 3—disease of the brain, 5—bronchitis, 3—cancer, 1—chorea, 1—colic, 1—consumption, 10—croup, 3—cyanosis, 1—debility, 1—dropsy, 3—dropsy of the brain, 3—scarlet fever, 2—gastritis, 1—hæmoptysis, 1—disease of the heart, 1—infantile disease, 2—inflammation of the lungs, 4—marasmus, 3—old age, 3—paralysis, 4—pleurisy, 1—premature birth, 2—rheumatism, 1—sore throat, 1—teething, 1—unknown, 4—inflammation of the uterus, 1—whooping cough, 1—worms, 1.

Under 5 years of age, 32—between 5 and 20 years, 6—between 20 and 40 years, 17—between 40 and 60 years, 7—above 60 years, 15. Born in the United States, 60—Ireland, 10—other places, 7.



THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

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THURSDAY, JUNE 13, 1861.

No. 19.

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THE CYSTICERCI OF THE TÆNIA.

(Continued from page 324.)

CYSTICERCI of the tænia have frequently been found in the brain and in the meninges, though often confounded with the hydatid-like cysts of the choroid plexus. The fibrous cyst which contains them is generally very thin. When they are not massed in too great a number, and when they do not provoke inflammatory phenomena, they ordinarily do not determine marked changes. In other cases, symptoms of meningitis or of cerebral compression are observed, such as cephalalgia, fever, agitation, delirium, convulsions, trembling of the limbs, paralysis, prolonged faints,\* coma. These symptoms may decrease and disappear during a longer or shorter time, or they may urge on death with greater or less rapidity.

Observations of cysticerci in the brain or in the meninges have been made by Laennec,† Rudolphi,‡ Himly,§ Louis,|| Chomel,¶ Bouvier,\*\* Krauss,†† without any special symptom provoked by their presence being observed during life. Dubrueil,‡‡ also, found them in the brain of an executed criminal. Forget§§ met with numerous hydatids (cysticerci?), free or but slightly adherent to the pia mater, over the surface of the pons Varolii, of the upper portion of the medulla oblongata, and under surface of the cerebellum, in a man 80 years old, who for six months had been troubled with fatigue and pains in his limbs, and with cephalalgia. This man was subject to attacks of epilepsy, his expression stupid,

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\* In a case mentioned by Lebert in the *Bulletin de la Société Anatomique de Paris*, 1837, p. 38.

† Loc. cit.

‡ Loc. cit.

§ Loc. cit.

|| Louis. *Recherches sur la Phthisie*, Paris, 1843, p. 162.

¶ Dictionnaire de Médecine, en 30 vol., Art. Hydatides.

\*\* Bulletin de l'Académie Royale de Médecine, 1840, t. iv., p. 556.

†† Damerow's *Zeitschr.*, t. x., 2e fasc.

‡‡ Gervais et van Beneden, *Zool. Med.*, t. ii., p. 250.

§§ Gazette Médicale de Strasbourg, 1846.

his vision and hearing sensibly diminished, his walk feeble and tottering, his urine passed involuntarily. Diarrhœa was added to his ills, and the patient died after a progressive diminution of strength and a serous infiltration of the extremities.

Dubious observations of cysticerci, analogous to the preceding, in which the precise characteristics of the parasites were not noted, have been made by Treutler,\* Aran,† Brera,‡ &c. Davaine and Duplay§ have found eight or ten cysticerci disseminated in the meninges and in the substance of the brain of an old man insane for ten years.

Calmeil|| observed many cysticerci at the surface of the left hemisphere of the brain, and four in the substance of the right hemisphere, in a man 47 years old, who had presented, during the last six weeks of his life, various symptoms (somnia, agitation of the jaws, delirium, feebleness) attributable to the irritation and compression of the brain.

In another case Calmeil¶ found three cysticerci on the surface of the right hemisphere of a young man occasionally subject to attacks of epilepsy and maniacal delirium, who died from phlebitis following phlebotomy.

In one other observation of Calmeil, a patient who lived only four days at the infirmary of Charentone first complained of a severe pain in his right leg, and almost immediately became delirious. The third day a tremulous agitation of the lips was noticed, the intellectual faculties still remaining disordered. The face was gorged with blood, the pulse strong, the respiration loud and painful; the large ventricles contained two cysticerci.

Leudet\*\* has reported the case of a woman, 28 years old, subject to attacks epileptic in form, during the last three years of her life; cephalalgia was constant, and her vision was considerably diminished. She died with acute cerebral symptoms. At the autopsy, seventeen cysticerci were found in the pia mater, in the grey substance of the surface of the cerebrum, the corpora striata, the thalami optici, and cerebellum. Twenty cysticerci were found in the muscles of the upper extremities.

Drewry Ottley†† has related the history of a woman, 40 years old, who for some months was subject to giddiness, and who was seized with numbness and demi-paralysis of the right upper extremity, accompanied by disturbed intellect and memory. These, however, disappeared after scarification. Shortly after, the giddy turns greatly increased and she was frequently convulsed, losing consciousness entirely. Towards the end of her life she had con-

\* Treutler. Obs. pathol. anat. in helminth. hum. corp., Lipsiæ, 1793.

† Archives Générales de Médecine, 1841, 3e série, t. xii.

‡ Brera, Lezioni, med-pratt, &c., Crema, 1802.

§ Davaine. Traité des Entozoaires, Paris, 1860, p. 660.

|| Journal Hebdomadaire de Médecine, Paris, 1828, t. i., p. 44.

¶ Comptes Rendus de la Société de Biologie, 1ère série, t. v., 1853, p. 24.

\*\* Dictionnaire de Médecine, en 30 vols., Paris, 1835, Art. Encéphale, p. 584.

†† Gazette des Hôpitaux, Paris, 1848, p. 149.



stant, though not extremely acute headache. The convulsive attacks became more and more frequent, and the patient succumbed to them at the end of the third year of her illness. At the autopsy, the pia mater was found to be studded with a large number of cysts, covering the surface of the hemispheres and penetrating between the convolutions of the cerebrum. The cysts, whose size varied from the size of a pea to that of a barley corn, existed principally over the left hemisphere. They were sunken in the gray substance of the convolutions, but none were found in the white substance. These cysts were vesicular worms, composed posteriorly of a semi-transparent vesicle, and anteriorly of a cylindrical prolongation, retracted in the vesicle like a finger of a glove, and pushed out by compression. This elongated portion was furnished at its extremity with a double row of tenacula, about which were four oral suckers. The little worm had all the characteristics of the one described by Rudolphi under the name of *C. cellulosæ*. Bränniche\* gives the following observation. A servant, forty-three years old, an epileptic for three years, entered the hospital May 3d, 1851. These notes were taken of her case. Cephalalgia of the left fronto-temporal region, somnolence, diminution of power of vision, sensations of sparks in right eye, unequal dilatation of pupils at times, strabismus, cerebral faculties enfeebled, loss of connection of ideas, hallucinations, speech difficult and slow, frequent vomiting, constipation, involuntary excretions, pulse slow, loss of power in upper extremities to a certain degree. She died the 21st of May. At the autopsy, three worms were found in the brain. The largest was lodged in the tissue of the anterior lobe of the left hemisphere, in a cavity somewhat larger than a hen's egg. This cavity encroached upon the anterior part of the lateral ventricle, and compressed the antero-external portion of the corpora striata; it was covered with a thin, transparent and vascular membrane. The worm was completely enclosed in this cavity, not adherent to it in any portion, and was composed of three parts, (*a*) an elongated sac as large as a small nut, filled with a yellowish liquid, containing a white body apparently adhering by its base to one of the extremities of the sac, where, on the outer surface, was a very small opening, hardly large enough to permit the passage of a bristle. From the extremities of this sac sprang two other sacs, one of which (*b*) was the size of a nut, the other (*c*) the size of a hen's egg.† They contained a limpid, uncolored liquid, and had no apparent communication. Immediately behind this worm, in the middle part of the left hemisphere, existed a sac the size of a nut filled with liquid, prominent on the surface of the hemisphere, and adherent to the dura mater. The third worm, the size of a hazel-nut, was found at the end of the right hemisphere; it was enclosed in an organized membrane, but not adhe-

\* Hospitals Meddelelser, t. iv. Schmidt's Jahrb., t. lxxviii. p. 171, 1853.

† These appendages appear accidental. The parasites were probably very old

rent to it; it contained a clear yellowish liquid in which were small whitish corpuscles. At one of the extremities of this sac was a punctiform orifice conducting to the middle of a whitish body analogous to that of the first worm. This body was adherent to the inner part of the sac, where it was constricted. The wall of this body had about  $0^{\text{mm}},35$  of thickness, and its inner surface was closely plaited. The walls of the three entozoa examined by the microscope appeared finely cellular, with numerous collections of particles, which on a chemical examination showed the presence of chalk. At the summit of the right lung was a cavity the size of a nutmeg, containing a yellowish concrete matter, surrounded by a membrane partially incrustated with calcareous salts. The lungs were free from tubercles. The parasites bore an exact resemblance to those of the *C. cellulosa* as described by Bränniche.

The following observation of Delaye\* is remarkable for the volume of the caudal extremity of the cysticercus. An old soldier of the Imperial Guard, 58 years old, experienced his first attack of epilepsy in 1848; a second attack occurred in 1849, and a third at the commencement of February, 1850. When received at the Hotel Dieu, he complained of a buzzing in his ears, and of torpor and feebleness of his lower limbs. A strengthening regimen diminished these symptoms, but after the 26th of February the epileptic seizures occurred each day. The remedies employed were followed by no relief, and he died the 6th of March. At the autopsy, a body the size and form of a pigeon's egg was found in the left ventricle of the brain, lying on the corpora striata, depressing the optic thalamus, and united to the cerebral substance. This oval body had a smooth surface and was analogous to the inner envelope of an egg; it was transparent, containing a limpid liquid in which was floating a rounded vesicle. The texture of the external bladder was apparently fibrous. The walls of the internal bladder were thinner, more delicate, and yielded at the slightest contact. They contained a lemon-yellow liquid, in which floated, attached to the inner surface, a small cylindrical body from ten to twelve millimetres in length. By the microscope, it was evident that the cylindrical body was formed of numerous rings, broad and rounded at their free extremity like the articulations of the tænia, and a small body formed like a wart furnished with a double row of tenacula.

Nivet† observed two cases of cysticerci in the brain and meninges. Fourteen cysts were found in the meninges and in the cerebral substance of a man 43 years old, who died after twelve days of illness following considerable agitation and delirium, though previously he had never apparently suffered an epileptic attack. In a man 56 years old, a pig-butcher by profession, subject at long

\* Journal de Toulouse, Mai, 1850. Schmidt's Jahrb., t. lxxviii, p. 201, 1850.

† Archives Générales de Médecine, serie 4, t. vi., 1849, p. 478.



intervals to epileptic attacks, and dying accidentally from a phlegmonous erysipelas of the left lower extremity, were found at the autopsy eight cysts in the meninges and substance of the brain, and many others in the iliac and psoas muscles, as well as in the muscles of the abdominal parietes.

In the first case, says Nivet, the tube-like part was encircled by a crown of radiating black fibres, supposed to be hairs, and the suckers were of a black color, while in the second case they were without color.

Aran\* observed the cysticerci (supposed by him to be acephalocysts) in a man fifty-three years old, who, six months before his death, was deprived of his reason, accompanied by a hemiplegia of the right side, without any apparent cause, but which disappeared after a copious bleeding. Five months later, a new loss of reason and paralysis of the left side occurred. By bleeding, the paralysis was much diminished, but delirium and agitation succeeded. On the night of his death, twenty epileptic attacks followed each other at intervals of five minutes. At the autopsy, the pia mater was found injected, and containing numerous half or wholly transparent bladders, which had for the most part burrowed cavities in the cerebral substance, or were prominent at the surface of the convolutions, and in the body of the brain. All these vesicles contained a transparent liquid, and in the centre, a small white hanging point, which, examined by a microscope, revealed neither head, sucker nor caudal prolongation. The other organs could not be examined.

In December, 1860, I accidentally found many cysticerci of the *tænia solium* in the pia mater, and in the body of the cerebral substance of a vigorous man fifty-one years old, who had been deaf and dumb from infancy, whose intelligence was quite limited, a laborer by profession, and who died with pneumonia. The convex surface of the hemispheres and the base of the brain were covered with milk-like patches of considerable extent, but not constantly continuous. These were thicker at certain points corresponding to the situations of the cysticerci, eleven or twelve in number. One of these escaped from the cranium as soon as the dura mater had been incised and drawn aside, its cyst being accidentally broken. The cysticerci, in the form of small vesicles from twelve to sixteen millimetres in diameter, were nearly all lodged in the pia mater, between two cerebral convolutions, as much to the right as to the left, irregularly strewn over the surface of the brain. Two of them were found encysted in the body of the white tissue of the centrum ovale, towards the left. Another was encysted in the thickness of a cerebral convolution adherent to the pia mater, at a point where this membrane was quite thickened on the right; this parasite was shrivelled, mummified, ovoid, only measuring one centimetre in length, by five

\* Archives Générales de Médecine, 1841, 3 série, t. xii. (Mémoire sur les Hydatides de l'Encéphale), p. 90.

millimetres in breadth. Another mummified cysticercus was found imprisoned in the midst of a cicatricial tissue in the white substance of the centrum ovale, near the convolutions. One of the cysticerci, situated in the thickness of a convolution, betrayed itself externally by a semi-transparent prominence. Finally, a cysticercus bi-lobed, or constricted at its middle part, probably by a vessel which passed across it, or by a fibrous bridle, as is generally observed when the parasite has an irregular form, was confined in the choroid plexus. All the cysticerci were enclosed in a very thin fibrous cyst, adhering intimately to the cerebral substance, or to the pia mater by fibrous and vascular prolongations, so that they could be enucleated, still preserving a portion of pia mater or of nerve tissue adherent to their surface. Upon the surface of the cysts were frequent anastomosing vessels, quite dilated. In the neighborhood of the cysts, the vessels of the cerebral tissue were very plainly injected. Except these the cerebral substance did not offer any sign of vascular congestion. The cysticerci were in immediate contact with the walls of their fibrous cysts. Their bodies, perfectly transparent, had a slight grayish hue. Invaginated in the caudal extremity, they presented themselves in the form of vesicles of twelve to sixteen millimetres in diameter, spherical, or slightly ovoid, one bi-lobed, according as they were able to develope themselves. They reproduced the form of the fibrous cyst. Each vesicle offered at a point of its surface a small, very narrow orifice. This orifice was continuous with a cylindroid mass, enlarged at its extremity, semi-transparent, opaline, which was balanced in the middle of the liquid enclosed by the delicate wall of the vesicle. In one of the vesicles which was incised, could be observed, for a certain time, vague movements caused by the influence of a gentle heat and mechanical irritation. Upon the circumference of the cylindrical portion, small whitish lobules were seen, arranged irregularly, and grouped especially in the vicinity of the vesicle. These whitish lobules were formed by very slender globules, whose *ensemble* constituted probably the sperm-producing glands. The cephalic extremity of the cysticerci was retracted in the interior of the cylindrical mass by a double invagination (like a glove-finger, pushed back upon itself) parallel to its axis. The isolated cysticerci were three and a half to four millimetres in breadth. The head measured about 0<sup>mm</sup>,6 in breadth, and the neck, immediately below the head, 0<sup>mm</sup>,25. The neck became very rapidly larger, and reached a breadth of from two to three millimetres. It then presented well marked transverse folds, and contained in its body numerous oviform corpuscles. The head, of a rounded form, was furnished with four suckers of 0<sup>mm</sup>,35 longitudinal diameter; it was terminated by a rostellum of 0<sup>mm</sup>,15 in diameter, around which was arranged a crown of twenty-four tenacula, twelve large and twelve small, placed side by side and alternating, their points



directed externally, their concavity directed backwards and applied to the side of the head. The tenacula had a massive form; their apophysis was situated at an equal distance from the two extremities. The large tenacula, 0<sup>mm</sup>,18 long, were 0<sup>mm</sup>,05 broad at the apophysis; the hook, 0<sup>mm</sup>,10 long; the manubrium, 0<sup>mm</sup>,08. The small tenacula, 0<sup>mm</sup>,13 long, were 0<sup>mm</sup>,05 broad at the apophysis; the hook, 0<sup>mm</sup>,07 long; the manubrium 0<sup>mm</sup>,06. The cysticerci extracted from their cysts, and immersed in water, grew rapidly white. Their epidermoid covering became swollen, opaline, and soon separated in a flake-like mass. An analogous change soon took place in the interior of the body. The liquid contained in it became troubled by the organic detritus which was detached from the inner wall of the caudal vesicle. When the cysticerci enclosed in their fibrous cyst remained in pure water for one or two days, a certain quantity of liquid passed by endosmosis through the cyst, and accumulated between this last and the body of the cysticercus. The cyst became more and more dilated, and finally burst. In no part of the thoracic or abdominal viscera, nor in the muscles or cellular tissue, were any cysticerci found. The liver and the lungs, very carefully examined, did not contain a trace of them. The intestines were free of tænia. As in the majority of cases thus far observed, so in this observation the cysticerci were discovered by chance.

It was impossible to obtain from the parents of this deaf and dumb man, any history of peculiarities noticed in his mental or physical health, at the time of the invasion, or during the sojourn of these parasites. During the last years of his life, he enjoyed very good health.

In a woman eighty-two years old, who died from pneumonia, I found five cysticerci of tænia solium in the brain and its membranes. Three of them were more or less mummified. The cyst of one was incrustated with calcareous salts. The two parasites intact were, one seventeen millimetres, the other nine millimetres in diameter. Their tenacula, thirty-two in number, resembled those described in the preceding observation. The large tenacula were 0<sup>mm</sup>,16 in length, and 0<sup>mm</sup>,056 in breadth; the small were 0<sup>mm</sup>,13 long by 0<sup>mm</sup>,045 broad; the rostellum measured 0<sup>mm</sup>,24, and the suckers 0<sup>mm</sup>,45 in diameter. Deposits of pigment in some abundance were scattered about the circumference of the tenacula. The extremity of the head showed distinctly the contour of the cephalic vesicle that is observed in certain tæniæ. Between the cyst and the parasite, and in the interior of the caudal vesicle, existed an abundant detritus of a whitish color, formed from the remains of the epidermis and chitine. The invaginated portion was surrounded by a well-developed lobulated and whitish mass. The wall of the cyst of one of the intact parasites, which was situated in the white tissue of the brain, was remarkable for its thickness, two millimetres. The parasites

appeared to be quite old. No functional troubles of the brain were observed during life. In the rest of the body there was no trace of the cysticercus.

Frédault has given the name of trachelocampyle to a species of cysticercus, that may be considered similar to that observed by Günsburg, also found by myself, and which I have called *C. turbinatus*. The parasites described by Werner (*T. eremita hydatigena*) belong to the same category of observations.

The observation of Frédéric,\* at the time an interne at Hotel Dieu, related to a woman 84 years old, who never had experienced any cerebral trouble, till she was suddenly attacked by apoplexy, and succumbed in a few hours. At the autopsy, the sub-arachnoid cellular tissue was found distended with serum, in which some twenty small, rounded or ovoid bodies were swimming(?); these were white and semi-transparent, having a diameter of six to fifteen millimetres. Many others were half or wholly engaged in the gray substance, though not adhering to it. None existed in the vesicles. Apparently the other organs were not examined, as no mention is made of them. When the vesicles were opened, a small, oblong body, from five to eight millimetres in length, and from three to five millimetres in breadth, adherent to them, and surrounded by a milky fluid, was seen. The vesicle presented no external orifice(?), it was smooth within and without, with the exception of some points of its external surface, which were velvety. The cephalic extremity, narrowed like the neck of a bottle, was curved like a crosier, presented a free extremity flattened, which may be considered the head, being furnished with a crown of twenty-four tenacula from 0<sup>mm</sup>,07, to 0<sup>mm</sup>,10 in length, and four suckers of 0<sup>mm</sup>,148.

In a man 49 years old, dying with pneumonia, Günsburg† found eight vesicles as large as cherries. Some were situated on the convex surface of the right hemisphere, partly free(?), between the pia mater and the internal membrane of the arachnoid, partly adherent to the convolutions by prolongations from the pia mater. The others reposed on the right side, upon the optic thalamus and the corpora striata, which were deeply depressed by these vesicles. The pia mater was infiltrated with liquid, and a whitish exudation, offering resistance to the convex surface of the brain. (The subject of this observation entered the Hospital for a fracture of the arm, attended with well marked tetanus. Later he was attacked with pneumonia and pneumothorax, and succumbed after a general infiltration of the cellular tissue. The infiltration and the milky patches of the pia mater ought not to be attributed to the parasites. The same remark applies to the other cadaveric lesions spoken of.) The vesicular bodies, except those swimming freely, were formed, 1st, by a fibrous layer of recent formation covered with capillary vessels; 2d, by an inner mem-

\* Gazette Medicale, Paris, 1847, p. 311.



brane free from adhesions, of a yellowish white color, separated from the external fibrous layer by a limpid serous liquid, consisting of concentric amorphous layers; its inner surface covered with refracting globules, insoluble in acetic acid, while the rest of the membrane, in nature fibrinous, was soluble in this reagent; 3d, by an amorphous membrane, apparently fibroid, distended by a clear and transparent liquid; 4th, by the body of the parasite 4 to 6 millimetres long, of a yellowish white color, folded and curled up on itself, fixed against the preceding membrane. In carrying an incision through the body of the parasite, it was evident that its form was very analogous to that of the nautilus. By the eye could be distinguished a head of elliptic shape, separated by a restricted part from the rest of the body. At the centre of the head was an orifice from  $0^{\text{mm}},3$  to  $0^{\text{mm}},4$  in diameter, through which projected a crown of tenacula. At their base were four oral bodies or suckers, finely granulated. The suckers were formed by a layer of spiral fibres (?), and their cavity provided with vibratile ciliæ salient and directed outwards (?). In the more mature individuals a deposit of pigment was seen about the terminal orifice. The wall of the body was studded with a large number of refracting globules of various sizes, without any apparent contents. The older parasites contained rounded corpuscles of concentric layers, some of which were furnished with an opaque nucleus. Günsburg considered them as bourgeons.

Nega, following Günsburg, appears to have met some sixty parasites analogous to the preceding, at the autopsy of a man forty years of age, who never had shown any symptom attributable to a lesion of the brain.

(To be continued.)

## ON ATMOSPHERIC CORPUSCLES.

By M. F. POUCHET.

I HAVE thought for a long time that the study of the bodies conveyed by the air into the respiratory passages of animals would offer interesting physiological results, and throw considerable light upon the subject of atmospheric micrography. Nor have I been deceived in this. In fact, in almost every class of animals, the examination of the respiratory apparatus clearly reveals the various modifications of the medium inhabited by them. But it seemed to me that the most important notions on this subject would be presented in those animals in which the air penetrates most deeply into the organism. Birds, consequently, have become the objects of particular attention, seeing that in them the air, after traversing the lungs, pervades not only the different cavities of the trunk, but reaches also the interior of the osseous system. In these animals I have devoted particular attention to the exami-

nation of the bones which contain most air, and chiefly to the *humerus*. And as in these situations the corpuscles, once introduced, escape only with great difficulty, owing to the immobility of the walls and the irregularities of their anfractuosities, we there find ample vestiges of all the matters conveyed by the air into the respiratory organs.

The examination of animals living in midst of towns, and in the interior of our dwellings, will excite surprise by the enormous quantity of starch-grains contained in their respiratory organs. In birds, corpuscles of this nature will be discovered in great abundance, even in the interior of the bones, and together with them will be observed, in profusion, particles of sooty matter, and filaments derived from the various fabrics of which our clothes are made. But the further the creature lives from towns, the more remote and wild its habitation, the more rare also become all these corpuscles in the inspired air. Under these circumstances, scarcely any traces of the sort can be observed. Frequently even not a single particle of the kind in question will be observed in animals or birds living altogether in the midst of forests; in these animals, on the other hand, the whole respiratory apparatus is filled with abundant *débris* of plants,—epidermis, chlorophyll, &c.

The amylaceous particles disseminated either in the atmosphere or in the interior of animals present two conditions—they are either of the normal state or cooked. In the majority of cases, the starch is found in the former condition; but, nevertheless, we frequently meet, in the atmosphere, and in all the cavities of animals, into which the air enters, with starch-grains either simply swelled or entirely burst, by the action of heat. The latter certainly proceed only from minute particles of bread carried about by the movements of the atmosphere. The panified starch is readily recognized by its enormous size and ruptured condition, and by the action of iodine, which does not produce in it the same bright color as it does in ordinary starch-grains.

The birds which inhabit the interior or live in the close vicinity of towns do not obtain this abundance of amylaceous particles simply from the air they inspire; they derive, besides this source, an abundant supply from the foliage of the trees amidst which they pass part of their lives. In fact, on examining the surface of the leaves of trees in the neighborhood of cities, when they have not been washed for some days by rain, abundance of specimens of every sort of corpuscles carried in the atmosphere will be found on them, and, universally, a considerable quantity of starch-grains, together with sooty and siliceous particles. On a single leaf of a horse-chestnut growing in the garden of Ecole de Médecine at Rouen, I have counted about thirty grains of wheat-starch either in the natural or panified condition.

The search for atmospheric corpuscles, in the respiratory pas-



sages is easily made. It consists simply in the passing of a stream of water through these passages, and the collection and examination of the fluid. For this purpose I inject the trachea, by means of a syringe, and when the lungs are distended with water, make incisions into them, and carefully collect all the fluid that escapes, repeating the injection several times.

In birds, I inject the trachea, and when the water has traversed the lungs and filled all the air cavities of the body, I open the thoracic cavity, and collect the liquid, which escapes in a jet. In all the experiments the fluid is received in conical vessels with a narrow bottom, and when sufficient time has elapsed to allow all the corpuscles to subside, these are removed by means of a very slender pipette, and submitted to microscopic examination. The atmospheric corpuscles may be collected from the hollow bones by the same mode of procedure. To effect this, I insert the tube of a syringe into the orifice by which the air penetrates into the cavity, and then make a section of the bone at the opposite end. The water injected, at first gently and afterwards with great force, in order to carry along with it the smallest corpuscles, is received in champagne-glasses and examined. Studied in this way, the respiratory organs afford a faithful idea of the life of the animals. Not only does the examination reveal to us what sites of habitation the animals prefer, and their kind of food, but even, when they are domesticated, the profession followed by their owners.

I have found in the air-passages of man the same atmospheric corpuscles as are met with in animals. In the bodies of two persons, who died in one of our hospitals, a man and a woman, whose lungs I injected, I found a large quantity of wheat-starch, either normal or panified; particles of silex and of glass; fragments of dye wood of a beautiful red color; fragments of dress, lastly a larva of a microscopic arachnidean, still living.

It was rational to conclude that, at certain times, the expectoration should contain corpuscles, similar to those I have described in the lungs. And this is actually the case; I have here met with normal and panified starch-grains, particles of soot, the débris of plants, filaments of wool or cotton of various colors, particles of silex, &c.

A fowl, brought up in a paved court at Rouen, afforded in its respiratory sacculi an enormous quantity of wheat-starch, normal and panified. Besides which they contained numerous filaments of cotton and of linen, and an abundance of sooty particles; there were but very few siliceous grains, a circumstance probably owing to the habitation in which the bird had existed. The humerus of this bird also contained much starch, particles of soot, a considerable number of cotton and linen filaments, and even some grains of potato-starch and of glass.

Thinking that in animals living in localities where starchy mat-

ters formed an object of trade, the abundance of amylaceous particles would be still greater, I procured two young chickens which had been kept for two months by a baker. My surmise was not unfounded. The whole of the respiratory organs in these chickens, notwithstanding their youth, contained an amount of starch surpassing that which I had found in the fowl.

A pigeon taken from a dovecote in the middle of the town presented, in its respiratory passages, besides particles of silex and soot, the débris of stuffs of various colors, and grains of potato-starch, together with considerable amount of wheat-starch of all sizes, and above all, an enormous quantity of lentil-starch. Even the *humeri* contained so much of the latter that from eight to ten grains were found in every case. I was unable to explain the presence of such abundance of lentil-starch in a bird which always swallows seed without bruising it. But I very soon discovered the source on examining the floor of the dovecote. This was completely covered with the dung of the pigeons, containing an enormous quantity of this sort of starch, which had passed through the intestines unaltered. In flying about in their dwelling, the birds diffused this in the air, and it thus gained an entrance into their respiratory organs.

The examination of a bird which is ordinarily kept only in wealthy establishments, affords another proof of what has been said. In fact, the numerous vestiges of magnificent stuffs exhibited in its respiratory organs manifestly recalled the luxurious dresses or works of those amongst whom it had lived. This bird was a peacock. Unfortunately I had at my disposal only its *humeri*; but having injected them, I was really struck with the abundance of, and the splendid colors presented by, all the fragments of stuffs contained in these bones. I found besides a considerable quantity of wheat-starch, numerous filaments of wool and of silk of the most magnificent blue, of a beautiful rose, and bright green.

The lungs of a mouse also afforded starch, silex and soot, but in far less quantity and in far smaller fragments, than in birds.

But if our attention be directed to wild birds, residing at a distance from cities, we observe a totally different thing.

A grey falcon (*Falco cinereus*, Mont.) killed in a large forest two leagues from any habitation, did not afford the least trace of starch, either in its air-passages or within the bones. There were met with only a few particles of soot and silex; and not a single filament of any kind of tissue was recognized. But, on the contrary, all the air-passages were filled with an abundance of the débris of plants and débris of insects.

In another wild bird (*Picus viridis*, Linn.) I found in the air-passages only an insignificant quantity of starch, and very little soot and silex.

In some frogs taken in the basins of the Jardin des Plantes, at



Rouen, which is situated close to numerous factories, and in a populous quarter, the lungs have always afforded a notable quantity of starch, an abundance of particles of charcoal and coal-soot, together with numerous fragments of silex and vegetable débris. Besides these, filaments of cotton, raw or manufactured, were extremely abundant. The respiratory organs of these animals also contained *Naviculæ*, diatoms, papilionaceous scales, the stems of mucedinous fungi, and fragments of confervæ.

If, again, we explore the respiratory passages of some animals, which although living in a state of liberty, are in the habit of frequenting our dwellings, we find in them evident vestiges of their double existence, wild and domestic.

A jackdaw afforded a striking instance of this. Its respiratory organs contained a very considerable quantity of wheat starch; what was very remarkable, an enormous number of sooty particles—a circumstance which is accounted for by the almost habitual abode of this bird on the lofty buildings of towns. There were found also, in its air-sacs, numerous filaments of cotton and abundant débris of plants.

In all my observations, which, without exaggeration, might be counted by hundreds, I have never met with either a *single spore* or a single ovum of a microzoon, nor with any encysted animalcule. Moreover, in all these minute researches I have always been able to detect starch-grains wherever they existed. Is it possible that the atmospheric spores and ova alone should have escaped detection? The ova of certain *Paramæcia*, being .0420 mm. in diameter, and consequently surpassing considerably in bulk the largest grains of wheat-starch, whose diameter does not exceed .0336 mm., if they really existed in the atmosphere in sufficient quantity to explain the generation of Infusoria, whose apparition astonishes and stupefies us, should have been immediately discovered in the same situations, and far more easily even than the starch-grains, seeing that they ought to exist in much greater numbers. To a negation, of this kind, in the actual state of science, but one answer is possible—*show these ova*.—*Comptes Rendues*, 1, 1860.—*Quarterly Journal of Microscopical Science*.

### Bibliographical Notices.

*A Practical Treatise on Phthisis Pulmonalis; embracing its Pathology, Causes, Symptoms, and Treatment.* By L. M. LAWSON, M.D., Prof. of Clinical Medicine in the University of Louisiana; Visiting Physician to the New Orleans Charity Hospital; formerly Professor of the Theory and Practice of Medicine in the Medical College of Ohio, &c. Cincinnati: Rickley, Mallery & Co. New York: S. S. & W. Wood. 1861. Pp. 567. 8vo.

THIS is a thorough and complete work on this ever interesting and important subject. It is specially valuable as being treated from an

American point of view, by an American observer, who writes from his own personal experience and observation. Hitherto we have depended almost altogether for our comprehensive treatises on phthisis upon the labors of our profession in Europe. We rejoice that we have here at last a book based on the phases and history of this fatal disease as it is seen here. America constitutes a distinct field for its study, from the circumstances of its peculiar social organization, the special habits of its people, and the various and opposite climatic influences to which they are exposed. From the great variety of soil and climate which it offers, there is the very best opportunity for a careful and accurate study of the causative and curative influences which they may exert upon it. Thus there is plenty of material for a valuable and practical work on the subject.

The volume before us is written in a truly philosophical spirit. It is not a mere compilation of the labors of others. It bears, throughout, evidence of being the ripe fruit of the author's personal labors and thought. The subject of the etiology of phthisis is treated in a most able manner, and contains very interesting and valuable statistics of the existence of this disease in different parts of the U. States.

The subject of the selection of a residence for consumptives within the limits of the United States, is treated as fully as the means at command permit, but the result only shows how much is needed to clear up the whole subject. It is very certain that heretofore such patients have often been sent to localities most unfavorable for their recovery or improvement. We can hardly think, for instance, of the Mammoth Cave incarceration, to which, a few years since, these poor sufferers were many of them doomed for months at a time, without a shudder. It is something to learn how little we really know on the subject. What facts there are, Dr. Lawson has gathered and made the most of. This is a field of professional inquiry which most urgently demands laborers, and our professional brethren throughout the length and breadth of the land could not do a better service to our people than by collecting and publishing all the information bearing upon the question in their own individual localities.

In speaking of the etiology of phthisis, the important question of the influence of stimulants as a preventive or cause of the disease, and subsequently their use in the treatment of its various stages, is very sensibly treated by the author.

In the department of therapeutics, special attention is paid by Dr. Lawson to the different stages of the disease, so as to attain, as far as possible, to a scientific completeness. "Particular reference has been made," to use the words of the author, "to the forming or precursory stage, which, it appears to me, has been too much neglected by systematic writers." The whole volume is a credit to our medical literature.

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*Lives of Eminent American Physicians and Surgeons of the Nineteenth Century.* Edited by SAMUEL D. GROSS, M.D., Professor of Surgery in the Jefferson Medical College of Philadelphia. Philadelphia: Lindsay & Blakiston. 1861. 8vo. Pp. 836.

This handsome and interesting volume, in the words of the Editor, "owes its origin to a desire, on his part, to popularize the profession, and to place its services and claims more conspicuously than has yet been done, before the American people." Following in the path of



Dr. James Thacher and Dr. Stephen W. Williams, Dr. Gross offers the present volume to supply, to some extent, the deficiency which exists in our literature of Medical Biography since the publication of the work of Dr. Williams, in 1845. It contains biographical sketches of thirty-two distinguished members of our profession, from all parts of the country, seven of them being sons of New England. We most heartily approve of the patriotic motive of Prof. Gross, and the profession are under lasting obligations to him for the manner in which he has carried out his plan. His volume is a valuable contribution towards filling up the gap in our literature, although it does not by any means entirely close it. The different notices are written by different hands, three of them only by the Editor. They are, of course, of various literary merit, but all contain matter worth preserving on record, and which the present and future generations will be grateful for. We sincerely hope that this book may meet with the success it deserves, and thus encourage Prof. Gross to carry out his design more fully by issuing another volume, as he intimates his intention of doing, should he be supported in his present undertaking. The volume is well printed, and is prefaced by a handsome portrait of Dr. Rush.

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*A Practical Treatise on Military Surgery.* By FRANK HASTINGS HAMILTON, M.D., late Surgeon Thirty-third Artillery, Fourth Brigade, Fourth Division, New York State Artillery; Professor of Military Surgery, and of Diseases and Accidents incident to Bones, in Bellevue Medical College; Surgeon to Bellevue Hospital; Professor of Surgery, and Surgeon-in-Chief to the Long Island College Hospital; Author of "Treatise on Fractures and Dislocations." 8vo. Pp. 234. New York: Baillière Brothers. 1861.

THE name of Professor Hamilton would be in itself enough to put this admirable book in the hands of every young man interested in this special subject. We cannot refrain, however, from saying a few words on its intrinsic merits. With the exception of the chapters on Dysentery and Scurvy, contributed by Dr. Austin Flint and Dr. Benjamin W. McCready respectively, the whole work is from the accomplished pen of the author, who courteously acknowledges, however, in general terms, the valuable assistance he has had from a number of Surgeons of the United States Army and Navy, by which the rapid completion of his work has been greatly aided.

The practical nature of the book may be gathered from the titles of the principal chapters. Thus, after the very interesting and valuable introduction, we have in Chapters II. The Examination of Recruits; III. General Hygiene of Troops; IV. Bivouac, Accommodation of Troops in Tents, Barracks, Billets, Huts, &c.; V. Hospitals; VI. Preparation for the Field; VII. Hygienic Management of Troops upon the March; VIII. Conveyance of Sick and Wounded Soldiers; and in the remaining Chapters the casualties and diseases of army life, with their methods of treatment. A useful Appendix is added, which contains much information of special value to medical men intending to enter the United States service.

In Chapter II., the various disqualifying diseases and imperfections which should lead to the rejection of candidates for enlistment are very fully given, together with the mode of examination and a printed form, such is used by the United States Surgeons to record their observations, with the questions to be asked, copied from the manual of

the service. This must be specially useful to the surgeons of our volunteer regiments. The chapter closes with a copy of the regulations for the examination of recruits in the United States Navy.

In the Chapter on Military Hygiene, in treating of the important subject of temperance, the interesting fact is mentioned that during the Revolutionary War the Fourth Massachusetts Regiment lost, in three years, by sickness, *not more than five or six men*. This was at a time when the troops were not paid, and consequently were cut off from the luxury of stimulants. Similar facts were noticed during the second war with Great Britain, under precisely similar circumstances. We don't know when we have met with a stronger argument for temperance than this; it cannot be too diligently remembered at the present time. In the same chapter are very useful suggestions about soldiers' clothing, together with some strictures upon the fancy costumes of some of our volunteers, well worth considering.

The subject of habitations for the soldiers, in the field and in barracks, is well discussed in Chapter IV., and is very fully illustrated by wood-cuts, leaving little to be wished for in this department.

Chapter VI. contains useful information, in detail, with regard to the articles supplied by the United States service to its surgeons for the treatment of the sick and wounded. The Chapter on the conveyance of disabled soldiers is quite full, and is illustrated by abundant figures of litters of various kinds, ambulances, &c.

The subject of Anæsthetics, which has led to some discussion of late in our pages, is treated with reference to the admissibility of their use at all. Little is said of the comparative value or safety of chloroform or ether, but the preference of the author is given to the latter. From the large experience of army surgeons in the Crimea, as well as of our own military and hospital surgeons here cited, there seems to be very strong ground for believing that these inestimable alleviators of suffering are not altogether free from a compensating deleterious influence. Quoting McLeod, Dr. Hamilton says, "I never saw" (in the Crimea) "one case among our numerous amputations in which primary adhesion took place throughout the whole surface of the flaps." The author thinks the use of anæsthetics may have been the principal cause, and concludes the chapter by saying that he "would never employ them when the system was greatly prostrated by disease, or by the shock of a recent injury, unless the patient exhibited an unconquerable dread of the pain of the operation, or the operation was likely to prove exceedingly painful. It is our opinion, also, that anæsthetics sometimes, and especially chloroform, prevent the union of wounds by adhesion, or by first intention."

The concluding chapters on Hospital Gangrene, Dysentery and Scurvy require no special notice, but give a completeness to this useful work. The whole book is illustrated throughout by the experience of our own armies, and its authority with those who need it most at the present time will have great weight from this circumstance. It is very handsomely printed.

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*On Diabetes, and its Successful Treatment.* By JOHN M. CAMPLIN, F.L.S. From the Second London edition. New York: S. S. & W. Wood. 1861. 12mo. Pp. 87.

THIS edition of Dr. Camplin's excellent little work contains a considerable amount of new matter relating not only to the treatment of



the disease, but to its pathology, including the results of Dr. Pavy's experiments. To those of our readers who are not acquainted with it, we would say that it is a valuable addition to our literature on the subject of this intractable disease, and one which every physician should read before undertaking to treat a case of glucosuria.

## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JUNE 13, 1861.

MEDICAL MATTERS AT FORT MONROE.—It had been our intention to notice the letter to the *Medical Times*, to which reference is made below, but our correspondent has so fully vindicated our medical authorities that we forbear even comment. We are not quite prepared to admit that any one of our recently appointed army medical officers is ignorant of the expectorant properties of ipecac and antimony, or of the composition of volatile liniment, and yet such would naturally be inferred from the communication of the aggrieved correspondent of the *Times*.

MESSRS. EDITORS,—I notice in the *American Medical Times*, New York, June 1, 1861, a letter signed E. K. Sanborn, and dated May 21, which reflects unnecessarily and unjustly upon the medical outfits of the Massachusetts Volunteers, as far as the Third and Fourth Regiments, then stationed at Fort Monroe, are concerned. Having been at the Fort at the time alluded to by the above writer, and having carefully examined the medical stores, at the request of one of the medical officers, with a view of obtaining, if possible, from the State, a further supply of articles believed to be needed, I can say from actual inspection that most of the articles said to be wanting in the "ponderous and expensive chests," generously furnished by the State and put up in the most excellent manner, had been placed in said chests, and were then conspicuously arranged on the shelves of the room used as a dispensary for the Third and Fourth Regiments, under Surgeons Holmes, Saville and Clarke.

The first complaint is "that there were absolutely no means of making ordinary volatile liniment, or any other embrocation"; now, both aqua ammonia and sweet oil were on the shelves of said dispensary, and I remember hearing Dr. Saville say that in an adjoining room was one of the Surgeons of the Vermont Regiment (and I feel quite positive it was the very writer of the letter in the *Times*), then suffering severely from an inflammation of the eyes (threatening vision) and the nasal and oral openings, caused a few hours before (May 14th) by the sudden escape of the glass stopper of a bottle of strong water of ammonia; there were also turpentine, camphor, and an abundance of narcotics, with which to make embrocations for a great variety of cases. If he ordered, as he states, the "outfit prepared for the Massachusetts Regiment, under the direction of the Medical Commission appointed by the government for that duty," he must have had the articles above alluded to, and it is quite certain he had aqua ammoniæ.

The second complaint is that there was "not a single expectorant,

nor any provision for making a cough mixture"; I saw there squills, ipecac, copaiba, tartrate of antimony, and Dover's powder, and the grass beneath his feet was studded with wild garlic in every direction. On a second trip to the Fort on May 22-26, I carried to the surgeons a full supply of cubebs, and also colchicum, and an additional amount of squills in case of need. There was also copaiba and sweet spirits of nitre enough for the "transitory penalty of social indiscretion," supposing his regiment had been guilty of such. Every physician has his hobbies in the way of medicines, and especially if confined to the comparatively restricted list of country practice, and is apt to think that if he have not his favorites by him he has nothing proper to work with; but the army or navy surgeon must have invention enough, by skilful combinations, to make one drug answer all its indications, throwing away the routine, the cumbrous preparations, the sugar-coated pills, and the niceties of civil practice. I have nothing more to say, in regard to the above letter, except that the writer could not have seen the outfit of the Massachusetts regiments, or could not have known what he did have, or wished to question the ability or careful supervision of the Massachusetts Medical Commission; and in either of these cases his complaints are utterly groundless.

Fort Monroe, on Old Point Comfort, Va., in lat. 37° N., is one of the healthiest localities on the Atlantic border, and one in every way suitable for a great central military rendezvous. Accessible by sea; easily communicating by the Potomac and Chesapeake with Washington and Baltimore, and also by the Elizabeth and James rivers with Norfolk and Richmond; free from miasmatic exhalations, with the heat tempered by the ocean breezes; it must be the fault of the government officers, if this station be not healthy. Fortunately, until the last of May, and until the mounting of the heavy guns was completed, the weather was uncommonly cool for the season, and the sun was oppressively hot only at mid-day; and frequent refreshing showers not only purified the air, but secured an ample supply of water for the cisterns upon which the Fort entirely depends. The men, considering the sudden change from civil to military life, and from cold New England to sunny Virginia, have been remarkably free from sickness. The prevailing complaints have been diarrhœas, colds, coughs, and rheumatic affections, from insufficient tent accommodations, unavoidable exposure to the changes of the weather, improperly prepared food, and a comparative scarcity of vegetables. There has been very great improvement in all these respects, and now, the men who are not stronger and healthier than when they left home, are few and far between. The ample facilities for sea-bathing will contribute greatly to the health and comfort of the troops, and diminish the tendency to parasitic affections so common among large masses of men, where water is scarce and soap a burden. A few men have been sent home invalided with hernia, doubtless brought on or aggravated by mounting cannon. Most of the 3d and 4th regiments are three-months men, and have undergone no medical examination, and accordingly comprise many who would be rejected by the examination preparatory to being mustered into the United States service. It is believed that most of them are sufficiently removed from infancy to incur little danger of contracting the measles.

For the benefit of the men, and the comfort and dignity of the surgeon, it would be well if the strictly military officers of regiments



understood better the common rules of hygiene, and could be made to feel, as Napoleon did, that disease (and from unnecessary causes too) kills more of an army than do the sword and bullet. Surgeons ought to have more to say, and all that is to be said, on the locality of camps, and ought to inspect personally all sanitary arrangements in respect to cooking, tents, personal cleanliness, and apparel; then we should hear less of dysentery, pneumonia, rheumatism, sun-stroke and typhoid diseases, and a military hospital would cease to be a pest-house or a black-hole, which many enter but few leave alive. Then we should have our Larrey, and Baudens, and Hennen, and Guthrie, and perhaps also our Paré, whose very presence in a camp would be victory, in the soldier's consciousness that his wounds would receive the tenderest and most skilful attention. K.

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EXAMINATION OF MILITARY SURGEONS.—We are requested to announce that the Examining Committee for the examination of regimental surgeons will hereafter meet once a week, Friday at 12, M., at the house of Dr. George Hayward, No. 16 Pemberton Square.

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Dr. S. Kneeland, jr., recently read a communication to the Boston Society of Natural History, on the respiration of the fishes of the blenny family and genus *pholis*, called shauny in Europe, and of which a few specimens have been taken in Boston Harbor.

The shauny has the habit of creeping out of water by means of the ventral fins as the tide recedes, hiding in crevices of the rocks, and there remaining until the tide again rises; they have been known to live thirty hours in a dry box. In this fish there is no air-bladder; the gill openings are very large, and would seem to permit the gills to become dry very soon, and produce death as soon as in the mackerel and other fish with large gill openings; there does not appear to be any special apparatus for separating the leaflets of the gills for admitting and retaining air, and thus delaying the period of asphyxia; there is no labyrinthine arrangement as in the climbing perch (*Anabas*), nor the small branchial openings of the eels.

It seems most likely that the skin is the principal medium through which respiration is effected in this fish while in the air, especially as the body is soft and scaleless. We know that this cutaneous respiration is sufficient to purify the blood in some fishes, as the *Synbranchus* of Guiana, which is found buried in the earth at a considerable distance from water; and also in frogs and salamanders, both adult and young.

Professor Agassiz observed that although the gill openings in this fish are very large, the cheeks, as in blennioids generally, are much swollen, and the gill-covers fit very closely, and, the branchial rays being soft, may serve to retain the water in the gills for a considerable time.—*Proc. of Soc. of Natural History*.

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UNG. HYDRARGYRI NITRATIS.—*Messrs. Editors*,—There are but few medicinal agents held in higher esteem by the profession than the ung. hydrargyri nitratis.

It would doubtless be much oftener employed if a uniformly good article could be obtained of the dispensary druggists, or could physicians easily and successfully prepare it themselves. The last edition of the U. S. Pharmacopœia orders neats-foot oil in its fabrication, instead of olive oil, as formerly directed. This substitution is certainly unfortunate, as the resulting ointment is usually less satisfactory than that prepared from the materials formerly employed. The cause of failure is owing mainly to the fact that it is almost impossible to procure in the market true neats-foot oil, and the article used is bad. No variety is so uniformly adulterated as this. Indeed, that which is offered by dealers, is often entirely factitious. It is a semi-fluid compound, made up of pea-nut oil, fish oil, rancid lard, with tallow, and possessing a most disgusting odor. The true oil

has, indeed, a peculiarly unpleasant smell which it communicates to the ointment, and renders it unfit for use.

Various substitutes have been proposed in the medical and pharmaceutical journals, among which have been linseed, pea-nut, and even bear's oil; but none of them furnish quite satisfactory results. After experimenting with a great variety of oleaginous substances with the view of improving the formula, I have been led to adopt fresh butter and lard, as furnishing the most desirable preparation. The formula is as follows:—Pure mercury, 1 oz.; nitric acid (sp. grav. 1.40), 14 fluidrachms; fresh butter, 6 oz.; lard, 6 oz. Dissolve the mercury in the acid, under a draught, and stir with a glass rod until the nitrous fumes have escaped. Melt the butter and lard together, elevate the temperature to 120 deg. Fahr. and pour in the acid solution. Perfect reaction will occur in the course of a few hours, the mass will puff up, evolving nitrous vapors freely. It should be stirred occasionally with a wooden or porcelain spatula. When cool, the result will be a very perfect golden-colored ointment, of the right consistency, which will remain unchanged for many months.

The butter should be of the best quality, and, if salted, must be kneaded in tepid water until all the saline particles are removed. The mercury should be free from tin and other impurities. If large quantities are prepared, the reaction is sufficiently rapid and perfect when the temperature remains at 100° Fahr. I have found that equal parts of butter and lard make a much finer ointment than butter or lard alone. The adoption of the above formula leaves little to be desired in the preparation of this useful ointment.

JAS. R. NICHOLS.

12 Kilby Street, June, 1861.

### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, June 8th, 1861.

#### DEATHS.

	Males.	Females	Total.
Deaths during the week, . . . . .	41	28	69
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	34.9	31.5	66.4
Average corrected to increased population, . . . . .	..	..	74.14
Deaths of persons above 90, . . . . .	..	..	..

#### Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
13	4	1	2	7	1	0	0	1

#### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	30.067	Highest point of Thermometer, . . . . .	80°
Highest point of Barometer, . . . . .	30.304	Lowest point of Thermometer, . . . . .	43°
Lowest point of Barometer, . . . . .	29.802	General direction of Wind, . . . . .	N.N.E.
Mean Temperature, . . . . .	60° 0	Am't of Rain (in inches) . . . . .	2.28

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 729.

		BAROMETER.					THERMOMETER.				RAIN.		Mean Amount of cloud, 0 to 10.
		7 A.M.	2 P.M.	9 P.M.	Lowest Point.	Highest Point.	7 A.M.	2 P.M.	9 P.M.	Mean Height.	Time, 00 minutes.	Meas-ure, 1 27	
Monday, May 27,		29.29	29.31	29.31			56	66	57				
Tuesday, " 28,		29.34	29.38	29.44			54	64	57				
Wednesday, " 29,		29.54	29.54	29.55			54	63	55				
Thursday, " 30,		29.59	29.51	29.46			53	68	62				
Friday, " 31,		29.47	29.40	29.37			57	64	63				
Saturday, June 1,		29.38	29.33	29.29			65	80	69				
Sunday, " 2,		29.20	29.19	28.25			68	77	68				

ERRATUM.—Page 317, 4th line of 2d paragraph, for "keetos" read *kestos*.

DEATHS IN BOSTON for the week ending Saturday noon, June 8th, 69. Males, 41—Females, 28.—Accidents, 2—apoplexy, 1—congestion of the brain, 1—disease of the brain, 2—inflammation of the brain, 1—bronchitis, 1—cancer, 1—carbuncle, 1—cholera infantum, 4—cholera morbus, 1—consumption, 13—convulsions, 1—croup, 1—cystitis, 1—debility, 3—diphtheria, 1—dropsy, 1—dropsy of the brain, 5—scarlet fever, 2—hamoptysis, 1—disease of the heart, 2—infantile disease, 2—disease of the kidneys, 2—congestion of the lungs, 1—inflammation of the lungs, 7—old age, 1—paralysis, 1—premature birth, 1—periperal disease, 2—rheumatism, 2—scrofula, 1—smallpox, 1—suicide, 1—unknown, 1.

Under 5 years of age, 23—between 5 and 20 years, 3—between 20 and 40 years, 16—between 40 and 60 years, 14—above 60 years, 10. Born in the United States, 46—Ireland, 18—other places, 5.



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SILICEOUS URINARY CALCULI.

BY JOHN BACON, M.D.

[Read before the Boston Society for Medical Improvement, June 10th, 1861, and communicated for the Boston Medical and Surgical Journal.]

SILICIC acid is widely distributed in the various vegetable substances used for food by man and animals, and is a constituent of nearly all potable waters. From these sources it is introduced into the blood and other fluids of the organism, as well as the solid tissues. In human blood, the proportion is extremely minute; in the hair, one or two tenths of 1 per cent are found. The blood and hair of the ox and other herbivorous animals are a little richer in silica; and in the feathers of some birds it reaches nearly 4 per cent. Silica also occurs normally in the urine of man and various animals, but only in an infinitesimal amount. Its existence in urinary concretions is regarded as extremely rare: very few cases are on record among the several thousands of analyses of calculi published by various chemists since the nature of these bodies was first successfully investigated towards the close of the last century. Few large collections of calculi are destitute of specimens of quartzose pebbles and other siliceous minerals, asserted by patients to have been passed from their bladders; but the mineralogical and chemical characters of these substances are almost always sufficient to prove their extraneous origin. Chemists are occasionally called upon to analyze siliceous sand and gravel, and even sizable pebbles, purporting to have been voided with the urine. Several such cases have occurred in my own experience. These foreign bodies may actually be introduced into the urethra or bladder, and require a surgical operation for their extraction.

Among the specimens of calculi from the urinary organs of herbivorous animals which I have analyzed within a few years, four proved to be siliceous. Two of these are in the Cabinet of the Boston Society for Medical Improvement, and two in the Warren

Museum at the Massachusetts Medical College. They are of undoubted genuineness. In the present paper are brought together for comparison all the cases which I have been able to find recorded, of the occurrence of silica in urinary calculi, either of man or the inferior animals. A sketch is given of each case in which a noticeable amount was found, with a reference to the original account in nearly every instance. Those calculi are first described which contain the largest proportions of silicic acid.

I.—A calculus from the urethra of a lamb, analyzed by Lasaigne. It had the form of a slender cylinder slightly tapering towards the ends, and measured a little over half an inch in length and one seventh of an inch in diameter. It was very friable, and consisted of slightly adhering concentric layers. Color white, with a slight red tint. On ignition, it left a white, pulverulent residue, forming about eight tenths of the calculus, and having all the properties of silicic acid. A trace of peroxide of iron was also detected. The remainder of the calculus was animal matter.—*Annales de Chimie et de Physique*, 1830, t. xlv., p. 420. This calculus is incorrectly described by Dr. Golding Bird and some other authors as composed of pure silica.

II.—A calculus from the urethra of an ox, killed on account of retention of urine caused by it. The specimen is in the Cabinet of this Society, and a small fragment was analyzed by myself in 1857. The analysis is published in the *Extracts from the Records of the Boston Society for Medical Improvement*, vol. iii., p. 150. Also, in the *Boston Medical and Surgical Journal*, 1857, vol. lvii., p. 301. Recently, I have divided the calculus through the centre, and determined the per centage of silica by a new analysis. The specimen is nearly spherical, with a rough and tuberculated surface, and measures four lines in diameter. Its original weight was about seven grains. In general appearance it resembles a mulberry calculus, and has a yellowish grey color. On section, a number of irregular layers are seen, enclosing a small nucleus of the same character as the surrounding laminae. The proportion of silica was determined by treating a weighed portion (about one and a half grains), in small fragments, with concentrated nitric acid at a boiling heat, to remove the saline and organic matters. The fragments became translucent, but retained their shape and hardness. After thorough washing with hot water, the fragments were dried in vacuo over sulphuric acid until they ceased to lose weight: then ignited in a platinum crucible and again weighed. By this process, it was ascertained that the silica occurs, partly at least, as a hydrate. The loss on ignition, amounting to 6.4 per cent. of the weight of the silicic acid, undoubtedly represents only a part of the combined water. Since the hydrates of silica lose some water at ordinary temperatures, the amount originally in combination cannot be ascertained. On applying heat, there was a transient darkening, showing that a trace of organic matter remained, but



the fragments quickly became quite white. This residue weighed exactly 80 per cent. of the original amount, and had the properties of pure silicic acid. Besides the common tests, its purity was proved by fusing one grain with carbonate of soda, and separating the silica in the usual mode by adding hydrochloric acid and evaporating to dryness. The separated silica, being thoroughly washed and ignited, weighed 0.985 grains. The loss is no greater than is usual in operating on so small a quantity, especially as traces of silica are always taken up on dissolving the saline residue after evaporation to dryness. No other substance was found in this solution. Besides 80 per cent. of silica, the calculus contains carbonate and phosphate of lime, water, and a little animal matter. Accompanying the remaining half of the calculus is a tube-vial containing a part of the silica obtained from it.

III.—A collection of more than six hundred little spherical calculi taken by Dr. John B. S. Jackson from an ox-bladder. They are mostly smooth, and of a yellowish-white color. In size, they are tolerably uniform; the largest ones measure a line in diameter, and a few are very minute. Some exhibit indistinct concentric layers, but no crystalline structure occurs in any. They are sufficiently hard to scratch flint glass. After boiling in nitric acid and ignition, they become quite white; anhydrous silica being left, which retains the original form and hardness of the calculi. They were analyzed by myself in 1857, and are now in the Warren Anatomical Museum. In a tube-vial accompanying the calculi are specimens which have been boiled in nitric acid and ignited. Since this analysis was published in the *Extracts from the Records* of this Society, vol. iii., p. 105, I have determined the proportion of anhydrous silicic acid, which amounts to 78 per cent. In the calculi, it appears to be combined with water as a hydrate; and is accompanied by a little animal matter, with a very little chloride of potassium and traces of sulphates and other salts of potash and soda. Hydrochloric acid takes up no salt of lime or magnesia, nor is any appreciable amount of silica removed by hydrochloric or nitric acid.

Small spherical calculi, resembling these specimens in general appearance, but composed essentially of carbonate of lime instead of silica, are occasionally found in great numbers in the bladder of the ox. They are often as large as peas, and frequently present a pearly or metallic lustre. There are many such specimens in the Museum of the College of Surgeons at London.

IV.—A calculus analyzed by Fourcroy and Vauquelin about the year 1798, and stated to be from the human bladder. It was made up of five layers, surrounding a nucleus of a yellowish-fawn color. The nucleus and two inner layers were very hard; and resembled a rough mulberry calculus, except in color, which was paler and more yellow. This portion of the calculus contained about two thirds of its weight of silicic acid. It was associated with animal

matter and a trace of phosphate of lime. The next layer consisted of uric acid; and the two exterior ones of urate of ammonia and phosphate of lime. No silica occurred in the three outer layers.—*Mémoires de l'Institut. Sci. Math. et Phys.*, 1802, t. iv., p. 135. This calculus and another from the human bladder containing an almost inappreciable amount, were the only siliceous ones in more than 600 analyzed by Fourcroy and Vauquelin.—See *Annales du Museum D'Histoire Naturelle*, t. i., p. 108.

V.—A calculus from the kidney of a sheep, analyzed by myself. It has a triangular prismatic form, tapering towards the ends; each face is about three lines broad, and the length is seven lines. It weighs  $7\frac{1}{2}$  grains. One of the three faces is covered by a tuberculated crust, made up of thin translucent laminæ. This crust has a pale bronze color, with a semi-metallic or pearly lustre and slight iridescence. One end of the calculus being removed, the interior is seen to be composed of several concentric layers, mostly of a greyish white color, with two or three darker ones; near the surface is a lustrous pearly layer, similar to the external crust. The portion analyzed contains about 50 per cent. of silicic acid; with carbonate of lime, carbonate of magnesia, animal matter and water. A trace of oxide of iron probably occurs, but was not certainly detected. The analysis was reported at the meeting of this Society on February 25th, 1861.—See *Boston Med. & Surg. Journal*, vol. lxiv., p. 211. The specimen is in the Society's Cabinet, with some fragments which have been subjected to the action of nitric acid and intense ignition.

VI.—A calculus from the urethra of an ox, a fragment from the exterior of which was analyzed by myself in 1860. The analysis is reported in the Records of the Boston Society for Medical Improvement, vol. iv., p. 136; and in the *Boston Med. and Surg. Journal*, 1860, vol. lxiii., p. 40. In this instance the animal died from retention of urine occasioned by the calculus, and consequent rupture of the bladder. The specimen has an irregular shape, measuring seven lines by three, and originally weighed  $8\frac{1}{2}$  grains. It is mostly covered by a thin and brittle crust, like a glaze; having a pale bronze color, and a semi-metallic lustre, similar to No. V. This crust is made up of very thin layers. To obtain a sufficient amount for quantitative analysis, I have recently made a section of the calculus, but not through the centre. The interior shows several irregular layers; the inner ones of a dark color, and those next the shining crust, of a yellowish white. The portion removed for analysis, which was a single piece, retained its shape and hardness after treatment by hydrochloric and nitric acids, and ignition. It was then quite white on the surface, but retained a little unburned carbon in the interior. It was fused with carbonate of soda, and the silicic acid determined in the usual way. A part of the silica obtained is preserved in a tube-vial with the specimen. The calculus contains in 100 parts, 43 parts of silica,



29 of carbonate of lime and 5 of carbonate of magnesia. Traces of phosphate of lime and peroxide of iron occur. The other constituents are water and animal matter. In the little fragment formerly analyzed, carbonate of magnesia and oxide of iron were not detected. Some of the thin laminae of the shining crust consist of carbonate of lime chiefly, with little or no silica. Most of them contain much silica, and after treatment by acids are transparent and colorless, and show on microscopic examination a finely granular texture, but no crystalline structure. They exert no action on polarized light. When heated highly they lose water and become white and opaque. In the four calculi analyzed by myself the silica occurs as a hydrate, and possibly also in some combination with organic matter. The present specimen and the collection of little spherical ones from an ox-bladder (No. III.) are the only siliceous urinary concretions in the Warren Anatomical Museum, which contains 184 urinary calculi that have been analyzed.

VII.—A calculus taken from the urethra of a bull, and analyzed by Wurzer. In shape it resembled a small bean, and weighed about  $6\frac{1}{2}$  grains. Its color was pale brown, and the surface very smooth as if polished. The analysis gave 38.5 per cent. of silica, with 36.3 per cent. of carbonate of lime. The other ingredients were 12.2 per cent. of animal matter (regarded by Wurzer as mucus), water, a little phosphate of lime, and traces of iron and manganese.—*Schweigger's Journal für Chemie und Physik*, 1833, band lxxvii., s. 27.

VIII.—A calculus from the urethra of an ox, whose death it had occasioned. It had the size and shape of a small bird's egg, and a yellowish grey color. Neither nucleus nor layers occurred. This calculus, like the last, was analyzed by Wurzer. It contained 38.2 per cent. of silica, and 36.8 per cent. of carbonate of lime. The other constituents were phosphate of lime, animal matter, water and a little oxide of iron.—*Schweigger's Journal*, 1822, band xxxvi., s. 321.

IX.—A calculus taken from the bladder of a fresh-water turtle, and analyzed by Lassaigne. It was very friable, and consisted of loosely adhering concentric layers. Weight, 262 grains. Color, yellowish-white externally, and white within. The chief constituent was phosphate of lime, amounting to 56 per cent. Water, organic matter, and small amounts of carbonate of lime, carbonate of magnesia and other salts were also present.  $4\frac{3}{4}$  per cent. of silica occurred in transparent grains.—*Comptes Rendus*, 30 Juillet, 1844.

X.—A large, ovoid calculus, removed by lithotomy from the bladder of a man. It was made up of layers, but contained no nucleus. Weight, 870 grains. Color, brown on the exterior; yellowish-white in the interior. It was composed of about  $75\frac{1}{2}$  per cent. of uric acid,  $17\frac{1}{2}$  of phosphate of lime,  $6\frac{1}{2}$  of animal matter, and 1 per cent. of silica. The analysis was made by Wurzer.

—*Gehlen's Journal für Chemie und Physik*, 1806, b. ii., s. 265. Also, *Annales de Chimie*, 1806, t. lx., p. 310.

XI.—A calculus from the human kidney, weighing nearly fifteen ounces avoirdupois. It was irregular in shape, and apparently moulded in the pelvis of the kidney. The principal constituent was triple phosphate, with salts of soda and ammonia, and animal matter. No lime was found. Silica occurred in the proportion of one third of one per cent. It was analyzed by Koninek. The case is reported in a Paris journal, *L'Institut*, for 1836; not the *Memoires* of the French Institute. I have not been able to consult this paper, but a full account is given in *Erdmann's Journal für praktische Chemie*, 1836 (N. F.), b. ix., s. 395.

The following cases are reported of the occurrence of silica in human urinary calculi, in small and not precisely determined proportions. Guéranger\* gives the analysis of a calculus from the bladder of a man, which was made up of concentric layers surrounding a hard nucleus, wholly composed of urate of ammonia. The remainder of the calculus consisted of phosphate of lime, triple phosphate, urate of ammonia, animal matter and some silica. It resembled a mulberry calculus, but contained no oxalate of lime. The patient passed with his urine sand having essentially the same composition as the outer layers of the calculus. In this sediment, the silica occurred in separate granules. I have not seen the original paper, but found an account in the *Annalen der Pharmacie*, 1832, b. ii., s. 107. Magnes reports in the *Journ. de Chim. Méd.* for 1836, the analysis of a human vesical calculus containing silica with phosphate of lime. A case of siliceous gravel is reported by Guibourt in the same *Journal* for 1830. These cases are cited by Robin and Verdeil.†

Traces of silica have been found by several chemists in human urinary calculi; usually accompanying oxalate of lime, and having the appearance of minute grains of sand. Dr. Yelloly‡ found one such specimen among 663 in the Museum of the Norfolk and Norwich Hospital, England, which were analyzed by him. It was a little oxalate of lime calculus from the bladder of a boy. It weighed about five grains, and contained a few minute siliceous granules. Two figures of it are given in the Catalogue of the Calculi in the Museum of the College of Surgeons, London, plate xii., figs. 8 and 9. A similar calculus, cut from the urethra of a physician, is described by Dr. Venables in the *London Medical Gazette* for April 3 and May 29, 1846. It was very rough and tuberculated, and weighed  $4\frac{1}{4}$  grains. It consisted of oxalate of lime chiefly, with a little uric acid, and a very minute amount of silica. Wurzer§ states that he has found silica in human vesical calculi, but in extremely small amount. Hopfe|| reports traces of silica

\* *Journal de Chimie Médicale*, 1831, t. vii., p. 225.

† *Chimie Anatomique*, t. iii., pp. 416–418.

‡ *Philosophical Transactions*, 1830, p. 418.

§ *Schweigger's Journal*, b. xxxvi., s. 324.

|| *Journal de Pharmacie*, t. xviii., p. 154.



in two calculi. In a single specimen in the Royal Surgical Museum of Copenhagen, Scharling reports traces in the fragments of a calculus chiefly composed of uric acid and urate of ammonia; and states that he has occasionally obtained a few grains of sand on washing calculi with rough and uneven surfaces. He believes that in such instances, the siliceous sand was not deposited from the urine, but conveyed into the bladder fortuitously. One specimen in the Copenhagen Museum, described as a siliceous calculus, is said by Scharling to consist of silica with several laminae of mica, and to be entirely free from organic matters; leaving no doubt of the correctness of his opinion that the specimen was of mineral origin.—See *Scharling on Calculi*, translated by Dr. Hoskins; p. 81. In a case reported by Dr. Venables,\* of the passage of small siliceous calculi by a woman, there is no doubt that the physician from whom he received a specimen which he describes, was imposed upon by the patient. The other case given in his article, in which a very little siliceous sand was repeatedly passed with the urine of a female patient under his own care, appears to be a genuine one. He states subsequently in a letter to Dr. Yelloly, that the filtered urine, on standing a fortnight in a glass vessel, deposited a few minute crystals of silica on the sides of the vessel, resembling the sand found in the urine when passed.—See Dr. Yelloly's paper referred to above.

In the urinary calculi of animals, a little silica has been detected in a few instances besides those already described in this paper. A very hard concretion taken from the urethra of an ox, was found by Simon† to contain a large proportion of carbonate of lime, with a little phosphate of lime and silica. Simon states that Buchholz found silica in a vesical calculus from a horse. Landerer‡ also detected traces in an urinary calculus from a horse. The Cabinet of this Society formerly contained a little calculus from the kidney of an ox, of the size and shape of an apple-seed, which was analyzed several years since by Mr. Richard Crossley, then an assistant in the laboratory of Dr. Charles T. Jackson. He found it to “consist mostly of carbonate of lime, with a trace of phosphate of lime and peroxide of iron—some animal matter, having the odor of benzoin—also silica, from which glass was made.”§ No portion of this specimen is preserved. There are now in the Cabinet three similar calculi which were supposed to have been taken from the kidney of the same ox, although some doubt existed on this point. One has the size of an apple-seed, and the others are much smaller. I have recently analyzed one half of each of these, and find no trace of silica. The analysis, which will be reported to the Society, shows a difference in other

\* London Quarterly Journal of Science, 1829, vol. vi., p. 234.

† Animal Chemistry, Sydenham Society Ed., vol. ii., p. 462.

‡ Annuaire de Millon et Reiset, 1847, p. 707.

§ Quoted from Manuscript Catalogue of Cabinet.

respects from the one examined by Mr. Crossley, and warrants the inference that they were not from the same animal.

The foregoing list might probably be extended by further search, but it includes all the authenticated cases collected from the sources of information within my reach. A few other reported cases remain to be mentioned. Allemain, an Italian apothecary, gives the analysis of an urinary calculus containing twenty per cent. of silica. There is no description of his process, and it is evident from the account of the other constituents found, that his analysis is wholly unreliable.—See “*Calculs urinaires*” in Violette & Archambault’s *Dictionnaire des Analyses Chimiques*. Boussingault\* reports the analysis of a small ferruginous mass, purporting to have been passed from the bladder of a lady. It resembled in appearance bog iron ore; and contained much peroxide of iron, with alumina, silica, lime and water. It was unquestionably an ore of iron. A case is described by Dr. N. Hill,† in which fifteen or sixteen little siliceous fragments, resembling bits of quartz, were passed by a young lady with the urine, and in part through a catheter. The circumstances of the case, and the characters of the alleged calculi, leave no doubt that the physician was deceived by his patient, and that she had herself introduced these bodies into the bladder.

In the catalogues of various large collections of calculi which have fallen under my notice, none containing silica are mentioned, excepting one in the Copenhagen Museum, already referred to, and the one analyzed by Dr. Yelloly, in the museum of the Norfolk and Norwich Hospital. It does not appear that any siliceous calculus has been subsequently added to the collection of that Hospital, which contained, at the end of 1859, the large number of 1524 urinary calculi.‡ The collection of 179 calculi in the Dupuytren Museum at Paris, analyzed by Dr. S. L. Bigelow, afforded none containing silica; one specimen examined by him had been previously reported as siliceous.§ None are reported in the published Catalogue of the Museum of the College of Surgeons, London; in 1845 it contained 649 human urinary calculi, and 57 from the lower animals, including 11 or more from the urinary organs of the ox. 35 of the 57 animal calculi, including all those known to be from the ox, were composed chiefly of the carbonate of lime. Silicic acid is a substance of so strongly-marked chemical characters, that even a trace could not be overlooked in a careful analysis. Judging from its occurrence in large amount in three calculi from the ox, analyzed by myself, it may be a more frequent constituent of animal concretions in this country than in Europe. I believe that more extended analyses will show that siliceous calculi are not so extremely rare as has been hitherto supposed.

\* Journal de Pharmacie, t. xi., p. 153.

† Edinburgh Medical and Surgical Journal, 1834, vol. xli., p. 127.

‡ London Lancet, Sept. 1, 1860.

§ Houel, Anatomie Pathologique, p. 437.



In the present paper, I have not referred to the presence of silica in intestinal calculi. Several chemists have found grains of sand in concretions from the alimentary canal, especially of herbivorous animals. Two intestinal calculi from the horse, belonging to the Cabinet of this Society, which were analyzed by myself, afforded a number of white and yellow angular grains of quartzose sand, which I have no doubt had been swallowed with the food. These calculi were chiefly composed of triple phosphate, with some organic matter.—See *Boston Medical and Surgical Journal*, 1859, Vol. LX., p. 383. Besides the accidental mixture of sand with the food or water taken into the stomach of the animal, another source may be the considerable amount of silica contained in the various grasses and cereal grains, the greater part of which passes through the alimentary canal unassimilated.

# PUS CORPUSCLES IN THE AIR!

AN AEROSCOPIIC STUDY BY DOCENT DR. THEOPH. EISELT IN PRAG.

[Translated for the Boston Medical and Surgical Journal, from the *Wochenblatt der Zeitschrift der k. k. Gesellschaft der Aerzte in Wien*, March 26, 1861, by J. C. WHITE, M.D.]

DURING an epidemic of conjunctival blennorrhœa, which prevailed a short time ago in the Orphan Asylum at Repy, 8 miles distant from Prague, I had opportunity to learn by experience that infection may take place in other ways than by contact. Reserving for future description the particulars of this interesting epidemic, it will be sufficient for my present purpose to show its intensity by a few numerical data. Such foundlings as are given up by their foster-parents are brought to the large and newly-built institution at Repy. Among these 250 foundlings, of whom the majority are between the ages of 6 and 10, there occurred in 1860 from November to December forty-six, and in the period between the 16th and 21st of February, 1861, also forty-six cases of acute conjunctival blennorrhœa. His Excellency, the Governor of Bohemia, Count Forgach, presided personally on the 19th of February at a Council in Repy, at which Prof. Ritter von Hasner, Landesmedizinalrathsubstitut Dr. Hoser, Dr. Biermann, Director of the Hospital, and myself as house-physician, were present. and ordered the perfectly healthy children to be left at Repy, but the diseased and infected to be removed with the greatest haste from the institution. Forty-six children were found unaffected, while the newly attacked and those which exhibited merely an injection of the conjunctiva or papillary structure of the membrane without suppuration, were brought to Prague, and distributed in eight different localities. In the latter place, four fifths, and in Repy all of the children, were under my care.

It will readily be believed that as a physician I took the greatest precautions to protect myself against infection. I was par-

ticularly careful not to touch my own eyes. The cleansing of those of the patients was entrusted to the Sisters of Charity, and most punctiliously performed. No chance of contagion from this source was possible, therefore, nor did any scattering of pus take place either by the patients sneezing or coughing during their examination. I was in the habit of going to the Asylum at Repy daily, where I first examined the healthy inmates, then touched the lighter cases of the disease with cuprum, and visited the worst last of all. Whenever I had in this way spent a few hours in the wards, I was sure to feel a sensation of burning and pressure in the eyes, without being able to observe anything upon the conjunctivæ except streaks of injection on the edges of the lids. In the course of a few hours this unpleasant feeling disappeared of itself. When the patients were brought to Prague and I visited them daily, this sensation of pain remained constant, the caruncles became red as well as the whole conjunctiva palpebrarum, and the semilunar fold became livid and so œdematous that the movements of the globe were impaired, accompanied by a mucous secretion, so that the lids adhered in the morning. In other words, I was infected without having become so by contact. The same happened without exception to all the nurses. Of seven of the nuns severely affected, two had caught the disease by the spattering back of the water while cleaning the eyes, two from the dissemination of pus by the sneezing and coughing of the children during the same process, one by washing the bandages, and two in some inexplicable manner. The infection in my own case only needed more unfavorable circumstances to become converted into an acute affection; as it was, however, application of weak solutions of nitrate of silver caused it to diminish in intensity.

Here, then, we have the fact that a person may be attacked by an acute conjunctival blennorrhœa without purulent contact in the ordinary sense; there is wanting only the explanation—how is this possible?

Pouchet, who for many years has been engaged in the microscopic analysis of the air, describes, in the *Compt. Rendus* for April, 1860, an apparatus which he calls an aëroscope. Through the kindness of our respected Prof. Purkyne a similar contrivance was prepared here. It depends upon the plan of driving a certain quantity of air across a glass plate moistened with glycerine, upon which the particles of dust and microscopic forms remain fixed, and may be thus readily examined by the microscope. The apparatus consists of a hydrostatic aspirator and two glass tubes, of which the first terminates at its upper extremity in a small funnel, the infundibuliform opening being directed upwards, while the lower is drawn out into a point of 0.50 of a millimetre in diameter. The second tube is ground into the first, and its upper opening is covered with a fine metallic sieve, upon which the glass plate is fastened. This plate is brought to within one millimetre's dis-



tance from the lower funnel-shaped opening by pushing in the tube, and the lower end of tube No. 2 is hermetically united to the aspirator, which is filled with water. The latter is merely a vessel made of zinc plate, two feet high and one foot square at its base, having at the bottom a stop-cock, and in the cover a mouthpiece for connection with the glass tube. If now the water be allowed to flow from the aspirator through the stop-cock, the same bulk of air will stream in through the funnel, and the matter suspended in it will remain sticking to the glass plate.

This aëroscope, as modified by Prof. Purkyne, was placed between the beds of two patients in a ward in which were 33 boys with acute conjunctival blennorrhœa accompanied by great secretion of pus, and the air was drawn through it. It must, moreover, be stated that the eyes were washed by means of glass syringes with warm water, and that from this room alone several pails of waste water were thrown away daily, presenting a milky appearance from the pus it contained. The experiment was made at 10, A.M., after the apartment had been ventilated, and *pus corpuscles were detected in the atmosphere by the very first transmission through the apparatus.*

In this fact lies the explanation of the attacks above described, in which cases direct contact with the patients and the blennorrhagic secretion was excluded. *Infection took place by means of pus corpuscles suspended in the atmosphere.*

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In presenting this short but significant communication of our respected colleague and friend to the knowledge of our readers, we cannot forbear adding a few words, prompted by the importance of the subject, and with the more reason, that Dr. Eiselt has far too modestly disdained to surround the announcement of his discovery with that display, which, in science as well as in other fields of human knowledge, appears necessary to procure for a new fact its merited consideration and recognition.

The great significance of this discovery to pathology in general, and to the study of contagion in particular, and the immense importance of this fact, when more thoroughly studied and corroborated, in connection with the care of the sick and the erection of hospitals, need not be farther impressed upon the physician. A new sphere of objective information is thus promisingly revealed, a new and hitherto all untrodden path opened, which, whether its results be negative or positive, will at all events lead to the advancement of science. \* \* \* \* \*

We are able to say that in consideration of the high importance of this subject, many members of our society have united to give it a thorough investigation, and we shall not fail to keep our readers constantly acquainted with the progress of these examinations, which from the abundance of suitable material afforded by Vienna, and from the combination and systematic employment of so many forces, promise a speedy and conclusive result.—*The Editors of the Wochenblatt.*

## A MONTH IN A VOLUNTEER CAMP.

BY A. B. CROSBY, M.D., SURG. 1ST REG. N. H. V.

As everything pertaining to the army is at the present time a matter of interest, it may be that a few facts relating to the hygiene of the volunteers may be acceptable to medical men.

I had the honor of being appointed Surgeon of the 1st Regiment N. H. V., on the 1st of May of the present year, and at once entered upon the discharge of my duties at Concord, N. H., where the regiment was encamped. Under the general direction of Maj. Seth Eastman, U. S. A., the mustering officer, I inspected every man in the regiment. The inspection was of course not as rigid as for the regular army. It was only necessary that the recruit should be able to hear and see well, give evidence of sound lungs, show sound hands and a free use of all his limbs. Hernia was regarded as an insurmountable objection. Between forty and fifty men were rejected under this inspection.

As soon as the ceremony of mustering the men into the U. S. service was complete, the whole regiment, in accordance with the army regulations, were vaccinated, although much against the wishes of some of the men.

As soon as practicable, I organized a hospital force, consisting of a Surgeon's Mate, Dr. H. C. Shaw; a Hospital Steward, Dr. B. F. Eaton; four nurses, two matrons and a cook. A wooden building was hastily thrown together, sufficiently large to accommodate twenty beds. Near the ridge pole at each end a small swing window was provided, and a suitable stove at the centre of the building, thus securing a very perfect ventilation. On the 8th of May I commenced keeping a hospital register, according to the medical regulations of the U. S. A. From the date above-mentioned to the 8th of June—one month—I had received and treated a hundred and twenty-five cases of acute disease. The number of out-patients was also very large during the month. Some mornings, as many as fifty out-patients were prescribed for, and the average of this class of patients was as high as fifteen per day.

Single Pneumonia, . . . . .	8 cases.	Vaccinia Excessive, . . . . .	1 case.
Double " . . . . .	1 "	Gonorrhœa, . . . . .	1 "
Pneumonic Catarrh, . . . . .	20 "	Dysentery, . . . . .	1 "
Facial Ague, . . . . .	1 "	Exhaustion, . . . . .	1 "
Meningitis, Sub-Acute, . . . . .	1 "	Feigned Sickness, . . . . .	1 "
Delirium Tremens, . . . . .	3 "	Measles, . . . . .	58 "
Conjunctivitis, . . . . .	3 "	Whitlow, . . . . .	1 "
Erysipelas of Face, . . . . .	1 "	Fractured Fibula, . . . . .	1 "
Follicular Inflam. of Throat, . . . . .	2 "	"    Clavicle, . . . . .	1 "
Diphtheria, . . . . .	2 "	Contused Ankle, . . . . .	1 "
Acute Bronchitis, . . . . .	4 "	Gun-shot Wounds—	
Amygdalitis . . . . .	4 "	Head, . . . . .	1 "
Syphilis, . . . . .	1 "	Thigh, . . . . .	1 "
Acute Rheumatism, . . . . .	2 "	Leg, . . . . .	1 "
Intestinal Obstruction, . . . . .	1 "		
Rheumatic Hyp. of Heart, . . . . .	1 "	Total, . . . . .	125



Of the hundred and twenty-five cases of acute disease actually received into the hospital, the foregoing is an accurate list, copied from my register

Out of this number, only one has died—a patient with double pneumonia. He was a feeble young man of 19—Arthur Cline, of Lyme, N. H.—and died after an illness of eleven days, greatly beloved and respected by all who saw him. “If I cannot march with my regiment,” he said, a few hours before his death, “I had rather die here.”

The 1st regiment N. H. V. has undoubtedly suffered more from disease, with one or two exceptions, than any regiment in the field. The encampment at Concord, situated on a dusty sand plain, was particularly unfavorable for the men. They were lodged in wooden barracks, with poor roofs, the weather was raw and much of the time wet, and the hospital was constantly full. The State equipped the regiment with great generosity. Through the kind coöperation of Gov. Goodwin and Gen. Jos. C. Abbott, I was enabled to provide the medical department in a most satisfactory manner. Our medicine chest, hospital stores, &c., were abundant for the campaign, and we were prepared to open a hospital with twenty beds, wherever we might be landed. We were also provided with two ambulances, one for two and one for four horses—the latter so arranged as to carry twenty men at full length, or thirty when sitting erect.

On the 25th of May we left Concord, being obliged to leave twenty men behind us—some of them convalescing from pneumonia, &c., and a few with measles. And here it certainly cannot be amiss to express my thanks to the ladies of Concord for their unremitting attentions to the sick of the regiment while at Camp Union. To enumerate the number of ladies, the quantity of broths and gruel furnished, and the amount of needle-work done, would require a much greater facility in the mathematics than the writer possesses.

Amid the roar of guns and the shouts of great masses of men, we reached Norwich, Ct., with five men on the sick list. The luxury of two fine steamboats revived the men, so that on arriving in New York, on Sunday morning, we had only four men that we were obliged to leave. These were provided with every comfort at the Manhattan Hotel, in Murray Street, by the proprietor, Mr. Huggins, were attended gratuitously by Dr. Wm. M. Chamberlain, and have since joined the regiment at Washington. We marched down Broadway amid an enthusiasm such as only a New York crowd can get up, and left Jersey City at 6 o'clock on Sunday night. In loading the baggage train, a private fell from a car and fractured the right clavicle, and was sent back to New York, where he received every attention from the sons of New Hampshire. We reached Philadelphia at midnight, crossed the ferry and came on to Havre de Grace, where we arrived at 9 o'clock,

A.M., on Monday. We were obliged to wait here five hours until our baggage train came up, much to the disgust of the railroad superintendent. A couple of privates on the engine, however, contrived to manage the throttle, and Col. Tappan, who is *au fait* at everything he undertakes, made what the dead heads call "the gentlemanly conductor." At Baltimore the regiment was under arms in the street for two hours, until the baggage train was seen safely on the "other side." I had here five men down with the measles, and was obliged to transport them through the city by hacks. We got off at 7½ o'clock, P.M., and by the gleam of many bivouac fires at length reached Washington at about 1 o'clock, A.M., on Tuesday. Our sick men were got into capital quarters, and our poor jaded regiment got what it so much needed, food and repose.

On Tuesday, we marched through Washington and out about two miles from the city, into the park of a gentleman by the name of Fletcher. It is a most beautiful bit of turf, surrounded by fine oak trees, called Kalorama—a Greek word, as I judge, meaning "beautiful view." My hospital tent, large enough to accommodate twenty patients, was soon pitched, and ten men put to bed. The measles now came thick and heavy; yet, notwithstanding that we had one storm of five days, our cases all did much better than I have usually observed, in my own practice, in private families. I attribute the favorable results in our cases of acute disease, to certain hygienic measures which have been scrupulously carried out in all cases. First, every patient has had his whole body sponged over with hot soap suds once every day; and if suffering from much febrile excitement, twice. Second, all our patients have had the most simple nourishment, properly cooked, and in quantities carefully graduated to their wants. Third, there has been an abundance of fresh air always about the patients, and the beds changed as often as every other day. I had a trench dug around the edges of the hospital tent six inches deep. At the most depending corner a gutter is dug off for some distance, so that in case of rain, the drainage is perfect, and the ground under the canvass remains perfectly dry. The ground is then covered with a layer of dry straw, and our single bed sacks, filled every time they are used with fresh straw, rest upon this layer. My hospital force is divided, so that one half is on duty twelve hours during the day, and the other half during the night. The patients are thus sure of good nursing both day and night. In case the air is very damp, a little alcohol poured into a shallow pan and burned in the centre of the tent dries the air perfectly, and need not be repeated more than once in two hours.

A few comments, and I have done with what I fear must seem very desultory facts. Please bear in mind, however, that I am sitting on a barrel, writing on a board, and my mental processes are being aided by a brass band which is blowing to the utmost capacity of its wind.



On referring to the list of diseases enumerated, it will be seen that 58, or nearly one half the cases, were measles—which may be regarded as accidental; yet there remain 67 cases of miscellaneous affections—a large number for a regiment of healthy country men, only a month in camp. Much, I believe, if not the greater part of this disease has originated from the carelessness of the men themselves, who in spite of all remonstrances throw themselves on the damp ground, exercise no care in their diet, however much cautioned, and then wonder that they are sick. Our men were enlisted from farms and machine shops mainly, and undoubtedly possess a great deal of strength. They are full of pluck, and, as the saying is, “just spoiling for a fight;” yet I do not think that it will follow that they will endure the most. At the end of a march of fifteen miles, from Washington to this place, the thermometer being at 90°, twelve men were obliged to go into hospital at once. On the contrary, the New York 9th, made up of clerks in the city, marched side by side with us the same day, and at the end of the march had only one man to go into hospital, and he sick when they started. I attribute this to the fact that these young New Yorkers are much more in the habit of being on their feet, and walking over the “magnificent distances” of New York. Instead of this, our New Hampshire farmers hardly ever walk any distance, usually having a comfortable wagon, and do not probably spend half as much time on their feet as city men. Most of the men in the New York 9th are thin wiry boys, with not a single extra ounce of adipose to carry, and take splendid care of themselves. In my judgment, the New Hampshire boys, in the trenches or in a charge, would lay the New York boys out, but on a march the city boys have the advantage.

The prescriptions for out-patients have been very numerous—not less, on a moderate calculation, than five hundred for the month. The water at Kalorama contained lime and magnesia, so that diarrhoea troubled the troops somewhat, but plenty of bathing and a diet of scalded milk and burnt bread proved efficient in checking it. On the march, men are inclined to drink a great deal of water, which troubles them very much afterwards. I myself find that a canteen filled with cold tea, without sugar or cream, is the most refreshing drink on a march, if taken in moderate quantities. Those who get whiskey into their canteens, are sure to go down before a march is over, either from sun-stroke or drunkenness.

Of purely military surgery we have had comparatively little. One night at Kalorama, the long roll beat at 1 o'clock, and the regiment turned out. At the end of half an hour I was sent for to dress a negro's head, which had been shot by a secessionist. True to its integral thickness, the ball had glanced on the skull, dividing the anterior temporal artery, which I ligatured. A private, having a revolver in his belt, with the muzzle pointing downward, managed to discharge it. The ball entered a little below

and to the inside of the anterior superior spinous process of the crest of the ilium, perforated the fascia lata, and lodged just above the external condyle, and I removed it by a counter opening. The third man discharged his pistol accidentally while running, and the ball lodged beneath the gastrocnemius, whence it was removed by a counter opening.

With the hope that these imperfect glimpses of a month in camp may be of interest to somebody, the writer is willing to stop.

Rockville, Md., June 13th, 1861.

## Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

APRIL 8th.—*Cancer of the Cardiac portion of the Stomach.*—Dr. JACKSON showed the specimen, which he had received from Dr. G. Faulkner, of Jamaica Plain, with the following history of the case.

“Mrs. B. died Feb. 27, 1861, aged 53. She was a small, spare, tough woman, and passed all her life in this region. At 22 she married, and had nine healthy children. Catamenia ceased at 44. She worked very hard and always had a good appetite, but her food often distressed her after a meal, so that she ‘had dyspepsia ever since she was a girl.’ She was hardly ever known to vomit, and during her pregnancies she was well, and never had nausea. Until she became sick, she could never relish *acids*—as vinegar, cider, or even an apple; then, these were particularly grateful to her.

“I can get no trace of cancer in her family.

“In August, 1859, she had so much distress in the region of the stomach and œsophagus, that she commenced taking homœopathic remedies, which she continued till near the close of life. There was no abatement of her suffering, and in the spring of 1860 there was nausea and sometimes vomiting; and by July the vomiting was constant on the taking of food. In December, she complained of no pain except a peculiar *distress* which came on a few minutes after taking food, and was generally relieved by its coming back again. There was not, at this time, any hardness to be felt in or around the stomach, nor was there ever any discovered; nor was there much tenderness at the epigastrium.

“The settled opinion seemed to be (when I first saw her in December), that she had a stricture of the œsophagus. This arose from the fact that she persistently felt and said that the food stopped a little more than half way down the œsophagus—putting her hand to mark the exact spot; so circumscribed was the pain, and so confident was she that the stoppage was *there*, that it had to be believed. She was at this period taking liquids and pap, literally all the time, and vomiting nine tenths of it again, within ten minutes, alleging that it had stopped half way, ‘*just there.*’ Exploration of the œsophagus with instruments, of various kinds, discovered no resistance whatever. Still the same experience went on to the last, and the patient was sure the food went *only so far*, and from that spot was thrown back. For the last two months she took large quantities of food, and her relish was



keen, being nothing hurt by the constant ejection of whatever was taken.

"Five days before death she raised about a pint of dark, bloody, grumous mucus, somewhat, but not very offensive, and this was the only time anything of the kind appeared—or anything but food. Until a few days before the close, she kept about the house, and on the whole, I think, suffered less *pain* than any victim of this disease I have seen. Except the stomach, the organs of the body were found remarkably healthy."

The cardiac portion of the stomach was in a state of open cancerous ulceration, to the extent of from two and a half to three inches from the lower extremity of the œsophagus; but the disease did not extend at all up the œsophagus, and it was perfectly defined in the stomach, the rest of the organ being quite healthy. The general character of the structure was that of a firm encephaloid, and the surface of the ulcer uneven, and of a yellowish-white, opaque color. The edges were softer, raised, somewhat rounded and vascular. The œsophagus throughout is quite healthy, being neither thickened nor dilated.

APRIL 8th.—*Arrest of Development in the Muscles of the Shoulder.*—Dr. LYMAN showed the patient, whose case is as follows:—John Keine, aged 22, born in Ireland, has always been in good health, and able to support himself as a teacher. At the age of two years, while being undressed, he was allowed to fall from the lap to the floor, striking on the right shoulder. Thirteen weeks afterwards, it was noticed that he could not raise or hold in his hand a small stick. The fact of the fall being recalled, he was taken to a "bone-setter," who "put eggs to it," and applied splints. The muscles have never developed, but the bones are of their normal size, or nearly so. The muscles of the fore-arm seem not to have been affected. There is no loss of sensation. The bones entering into the composition of the shoulder-joint appear nearly destitute of muscular covering, being held together by the ligaments, and covered with skin, while the pectoral of the same side is but slightly developed. The case, at first view, presents a marked resemblance to those described under the various titles of "atrophic paralysis," "atrophic muscular paralysis," "progressive muscular atrophy," "muscular atrophy with fatty degeneration," "wasting palsy;" but pathologically there seems to be no resemblance, this being merely an arrest of development from injury, and consequent *absence* of power, while in those, on the contrary, fully developed muscular tissue becomes paralyzed, and progressively atrophied and absorbed, or transformed into fatty tissue, with, in the majority of cases, a fatal result to the patient.

## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JUNE 20, 1861.

REGISTRATION OF MEDICAL PRACTITIONERS.—A few weeks since we referred with satisfaction to the action of the Louisiana Legislature in making an attempt to protect the medical profession and the community.

nity at large of that State from the hitherto unbridled license of every ignorant pretender who might choose to assume the title of physician, and we published the act by which it is hoped this desirable end may be attained. Although the act seems to us imperfect and not sufficiently guarded in its provisions, as the first step it is an important one and will doubtless lead to very beneficial results. Our want of sympathy with the political position of Louisiana at the present time does not prevent our recognition of anything which shows that reason and good sense have not wholly deserted their throne within her distracted borders, and we are ready to follow whenever she takes the lead in so sensible a movement as that to which we have alluded. We have been hoping for a long time that some step might be taken here in Massachusetts to accomplish a similar result. It has long been a source of unutterable disgust and sorrow that with all our self-glorification and complacency at our superior educational advantages and enlightenment, the popular mind is still as ready as ever it was to be deluded by every absurdity which shameless assurance chooses to present to popular credulity. The public oesophagus is as capacious and insatiable as ever for medical monstrosities and impossibilities, and still cries, like the daughters of the horse-leech, Give! Give! Galvanic baths, native Indian physicians imported straight from Ireland via Canada, the *Newtonian* system of laying on of hands, have of late rather forcibly revived the general consciousness of the fact of the readiness with which the community falls into the hands of the spoiler, and prompt us to speak our mind on the subject now. Nothing seems too incredible for the public to accept and put faith in, if it is only urged with grave, unflinching assurance. A medical friend once remarked to us, that he verily believed that if he were to announce to the community that he had made the wonderful discovery that he could cure diseases by a peculiar process of painting the patient's nose sky blue, his office would be thronged with eager aspirants after such a cœrulean distinction. We hope no zealous seeker for the emoluments of the profession will hasten to improve this suggestion and declare to the world so important a discovery; we shall certainly claim for our friend priority if he does. But this is from our purpose.

We feel that it is due to the public as well as the medical profession that our State Society should at once make an effort to bring about so fortunate a state of things as has recently been accomplished in England by the Medical Registration Act. No reasonable man, one would think, could object to some such enactment, which would really be such a blessing to the community. Often have we heard it said, when speaking of the outrageous imposition practised upon our people by some one of the abominable quacks that have of late years so gorged themselves here in Boston at the expense of the public health and the public purse—often has it been said to us, “Well, Doctor, why don't you medical gentlemen prevent this? It belongs to you, it is your business to open the eyes of the community in these matters. You *can* do it, and you *ought* to do it.” All we could say has been, that there was no legislative enactment behind which we could find shelter or under cover of which we could attack such an unprincipled horde of marauders, and the public were too jealous of being interfered with in their privilege of being “fooled to the top of their bent” to inspire any medical man with the least confidence to undertake such a Quixotic attempt. We feel confident, however, that much of



the jealousy hitherto shown by the community of the regular medical profession has come from ignorance of their real purpose and desire in this matter and of the outrageous impositions practised upon them by itinerant quacks. We still have faith in the prevailing power of truth, but it must be brought into action by skilful hands. We are just starting in our State upon a new professional year. Our medical anniversary is just over, and we have ample time for the preliminary consideration of any measure of importance before the next annual meeting. In our opinion, the movement which we indicate should be well matured and proceed from no less responsible a body than the Massachusetts Medical Society. We have personally no definite plan to offer; but let the profession consider the subject, and gather what light it can on the subject from abroad, and then we shall be prepared at the next Annual Meeting to initiate some steps which by perseverance in so laudable an undertaking may lead before long to a consummation we have so long sighed for in vain. We throw out these suggestions, hoping some worthier pens may take them up and give them a more direct and practical form. We should be glad to receive any communications from our professional brethren who are groaning, like ourselves, under the sense of this great tribulation.

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APPOINTMENT OF SURGEON-GENERAL OF MASSACHUSETTS.—The Governor has commissioned Dr. Wm. J. Dale, of Boston, as Surgeon-General of the Massachusetts forces. Dr. Dale has from the first been a member of the Medical Bureau, and the efficiency with which the duties of that important department have been performed renders it certain that the appointment of one of its members cannot fail to give general satisfaction, as well to the government as to the profession.

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MEDICAL OFFICERS FOR THE MASSACHUSETTS REGIMENTS.—The following gentlemen have been examined, and the first four have received their commissions as surgeons and assistant surgeons:—

1st Regiment.—Dr. R. H. Salter, Surgeon; Dr. S. A. Green, Assistant Surgeon.

2d Regiment.—Dr. L. M. Sargent, Surgeon; Dr. L. R. Stone, Assistant Surgeon.

3d Regiment.—Dr. C. A. Chamberlain, of Northampton, Surgeon.

4th Regiment.—Dr. S. A. Holman, of Taunton, Surgeon; Dr. Z. B. Adams, of Boston, Assistant Surgeon.

5th Regiment.—Dr. Peter Pineo, of Boston, Surgeon; Dr. P. A. O'Connell, Assistant Surgeon.

6th Regiment.—Dr. Luther V. Bell, Surgeon; Dr. F. Foye, Assistant Surgeon.

Dr. George H. Lyman has been added, by appointment of the Governor, to the Board of Examiners.

The following is a portion of a communication from Surgeon-General Dale to the Board of Examining Surgeons, expressive of the Governor's appreciation of the importance of the rigid examination of candidates for medical appointments, as well as of the services thus far rendered by the Commission.

HEADQUARTERS, MEDICAL DEPARTMENT, BOSTON.

TO GEORGE HAYWARD, M.D., *Chairman of Medical Commission.*

I am directed by His Excellency, the Commander-in-Chief, to express to you

his wish that your action should be entirely independent of his in the matter of examining candidates.

He expresses me to assure you and your associates of his grateful appreciation of your important services, and his continued desire that the candidates should stand strictly upon their own merits, without any feeling of delicacy on the part of the Board towards his nominations.

**ARMY MEDICAL BOARD.**—It is stated that the Secretary of War has instructed Surgeon-General Finley to convene an Army Medical Board at Washington, for the purpose of examining candidates for Brigadier Surgeons, and report, and the appointment shall be made only from among those who are reported as qualified. In consequence of numerous complaints having been made to the Department of the incompetency of regimental surgeons, who have been appointed either by the commanding officer or the Governors of States, a similar Board has been instituted. The Board will examine the surgeons of whom complaint has been made, in order to secure their dismissal if found incompetent.

**NEW YORK DISPENSARIES.**—During the month of May last, in the five Dispensaries of New York city, medical and surgical services, vaccination and medicine were afforded gratuitously to 17,069 persons. The principal causes of death were consumption, smallpox and measles. The prevailing diseases chiefly affected the respiratory and circulatory system. The number of prescriptions dispensed was 24,067; number of primary vaccinations, 5443; number of revaccinations, 210; number of native patients, 9691; number of foreign patients, 7378.

### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, June 15th, 1861.

#### DEATHS.

	Males.	Females	Total.
Deaths during the week, . . . . .	31	36	67
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	34.2	28.5	62.7
Average corrected to increased population, . . . . .	..	..	70
Deaths of persons above 90, . . . . .	..	..	..

#### Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
14	1	2	2	7	0	0	0	0

### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	29.876	Highest point of Thermometer, . . . . .	82°
Highest point of Barometer, . . . . .	30.160	Lowest point of Thermometer, . . . . .	45°
Lowest point of Barometer, . . . . .	29.670	General direction of Wind, . . . . .	S.W.
Mean Temperature, . . . . .	65°2.	Am't of Rain (in inches) . . . . .	0.00

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co., Iowa. Latitude, 41.31

North. Longitude, 13.41 West. Height above the Sea, 729.

		BAROMETER.					THERMOMETER.				RAIN.		Mean Amount of cloud, 0 to 10.
		7 A.M.	2 P.M.	9 P.M.	Mean Height.	Highest Point.	7 AM	2 PM	9 PM	Mean Height.	Time, 0 hours, 00 minutes.	Measure.	
Monday, June 3,	4,	29.28	29.26	29.28	29.326	29.440	65	74	62	65	0 hours,	0.03	4
Tuesday, " 4,	3,	29.30	29.27	29.29			60	67	62				
Wednesday, " 5,	5,	29.32	29.30	29.28			58	63	61				
Thursday, " 6,	6,	29.24	29.27	29.30			65	75	67				
Friday, " 7,	7,	29.35	29.34	29.35			61	72	68				
Saturday, " 8,	8,	29.40	29.39	29.40			65	80	71				
Sunday, " 9,	9,	29.44	29.42	29.37			69	81	72				

DEATHS IN BOSTON for the week ending Saturday noon, June 15th, 67. Males, 31—Females, 36.—Abscess, 1—accidents, 2—anemia, 1—disease of the bladder, 1—inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 1—inflammation of the brain, 3—bronchitis, 1—cancer, 2—carbuncle, 1—cholera infantum, 1—consumption, 14—convulsions, 2—croup, 2—cyanosis, 1—diarrhœa, 1—dropsy, 1—dropsy of the brain, 2—drowned, 1—scarlet fever, 2—infantile disease, 2—disease of the kidneys, 1—congestion of the lungs, 1—inflammation of the lungs, 7—marasmus, 1—measles, 1—old age, 1—paralysis, 1—premature birth, 2—puerperal disease, 1—cramp of the stomach, 1—suicide, 2—unknown, 2—whooping cough, 2.

Under 5 years of age, 30—between 5 and 20 years, 3—between 20 and 40 years, 18—between 40 and 60 years, 9—above 60 years, 7. Born in the United States, 47—Ireland, 16—other places, 4.



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DR. WARE'S LECTURES ON GENERAL THERAPEUTICS.

LECTURE VI.

GENTLEMEN,—We have already considered the management of the stomach and alimentary canal in certain respects, but there still remain a number of points of practice concerning them which require attention, especially in relation to vomiting and purging as remedies. These have always been extensively employed, doubtless too extensively, and upon the presumption that they were direct methods of cure. But we are to be careful, when we take into view the firm reliance placed upon them by the long series of eminent men who have adorned the healing art, that we do not run into the opposite extreme. Because we do not find that they accomplish all that has been claimed, and in the manner that has been claimed, for them, it is not hastily to be inferred that they are without efficacy, and that they may not do good, though in another manner. The general and very just reluctance which is now felt to subject patients to annoying and distressing remedies, has especially led to a very general abandonment of emetics in cases where they were formerly universally employed. This is not strange when we consider the temporary violence and disagreeable character of their operation. This state of opinion and practice affords a favorable opportunity of passing in review their claims as remedies, and endeavoring to establish the nature of their effects and the limits of their efficacy.

Vomiting is usually preceded by nausea, and is in fact the natural relief to it—its natural termination. It is in principle a salutary effort. We see in a great many instances that it is so—as when something offensive is present in the stomach. We infer in a great many others that it is so, as where it rouses up the system after faintness from loss of blood, when it appears to act by restoring the balance of the circulation disturbed by the sudden evacuation. Where the relief is transient, it is because, as in seasickness, the cause is continually re-applied; or because, as in the

case of a tumor pressing on the stomach, or in pregnancy, the cause is permanent and incapable of being removed.

Nausea proceeds from a great variety of causes;—from offensive substances in the stomach; from some unnatural state of the organ itself, such as inflammation, irritability, too deficient a presence of blood after hæmorrhage, and perhaps the opposite condition; from sympathy with other organs, as the brain and nerves in apoplexy, hydrocephalus, and affections of the mind—the liver in jaundice—the kidneys in Bright's disease—the uterus in pregnancy, and on the access of the catamenia; from any sudden impression or injury, as a blow or the twisting of a tendon. These are only a few examples; others will suggest themselves to every one familiar with disease. The immediate effect is almost invariably a relief to the distress, the sinking, the depression, the faint feeling that precedes and apparently occasions the act of vomiting, and indicates that its purpose is essentially salutary. As has been before remarked, however, natural efforts of relief take place according to a general law, and may fail of ultimate benefit from the nature of the cause or from the state of the patient's constitution. So, too, natural efforts do not uniformly occur where circumstances are the same, and the essential question theoretically is, whether, as nature in certain morbid conditions sometimes does and sometimes does not relieve them by vomiting, it will be useful, where she does not, to produce that state of the stomach artificially, which she does spontaneously. The inquiry may be carried still further, whether, as it is found that nature by vomiting spontaneously relieves some morbid conditions, it may not be found that by vomiting, artificially induced, other morbid conditions, more or less analogous, where she exhibits no tendency to it, may also be relieved. But such questions, though theoretically suggested, cannot be theoretically solved, and they can only be determined by bringing them to the test of experience. However probable it might be made by a course of reasoning that vomiting is likely to have a favorable effect upon disease, such reasoning can only lead and direct our inquiries, and not furnish an answer to them.

The positive and direct effects of vomiting upon every part of the system are more considerable than perhaps any other remedy. This might be expected from the intimacy of the sympathy between the stomach and every other part. We perceive them in the brain and nervous system—in the state of the organs of respiration and circulation, and in the mode of performing their functions—in the circulation of the extreme vessels, especially of the skin—in the state of the stomach itself, the secreting organs in its neighborhood, and in the alimentary canal. It is not an exhausting process, unless long continued or carried to excess; indeed, it rather serves to excite, develop and stir up the activity of parts.



As a consequence of this general excitement and the immediate relief which is found to succeed the operation of emetics, it might be anticipated that they would have a powerful influence over acute diseases, in arresting, mitigating or shortening them. This has been the opinion held with regard to them. The severe scrutiny, however, to which the history of these diseases, especially the proper self-limited ones, has been subjected, has tended to show that this view of their efficacy is not sustained by facts, and that notwithstanding the temporary benefit experienced, the course of such diseases is not essentially modified or shortened by them, except so far as they are used to relieve the stomach, as evacuants, at the beginning. Indeed, it is not impossible that the violent drastic vomiting to which patients have been sometimes subjected, may aggravate and protract them by disturbing that normal and salutary train of events by which the system itself is striving to carry them on to a successful issue.

Still, circumstances will occur at various periods in their course which may require interference in this way. Thus it sometimes happens that in consequence of premature or injudicious attempts to give nourishment, or to give that nourishment which is too substantial or abundant, a disturbance of the stomach is produced, indicated by oppression, acidity, nausea, imperfect attempts at vomiting, and general uneasiness, where a gentle emetic gives a relief that the spontaneous effort of the organ does not; or without any assignable cause a similar condition may arise more especially connected with the formation of offensive secretions, sour, bitter and discolored, in which the same measure aids in the restoration of the healthy state. Under such circumstances, even an advanced stage of disease or a state of considerable weakness constitute no objection to this practice.

In some chronic cases, nausea will be frequently and sometimes almost constantly present, not always intense enough to produce vomiting, but enough to render the patient uncomfortable and to reduce his strength. This may be connected with some particular meal, or occur only at some particular part of the day; most commonly in the morning. It is usually accompanied by impaired digestion, but not uniformly, and is not inconsistent with the power of taking food, with the assimilation of it, and with a tolerable nutrition. This symptom occurs, for example, in some period of many cases of Bright's disease. Moderate vomiting will usually relieve it, for a time at least, and sometimes permanently, and will improve the general condition of the digestive organs; and although it is not to be expected to contribute towards an ultimate removal of the malady, yet it does contribute to the comfort of the subject and in some measure towards the prolongation of life.

Various other impaired states of the stomach and digestive organs appear in the course of chronic affections, impeding their recovery, and similar states also present themselves where they

seem connected with no other distinct disorder, but apparently constitute the patient's whole difficulty. Among these is what may be called a state of languid digestion. There is neither nausea nor loathing of food, but a simple and entire indifference to it. It can be taken, though in small quantity; it does not disturb or oppress, and it seems to be digested; but this happens not more than once or twice in 24 hours, the power of digestion returning only at long intervals. This is sometimes remedied by stimulants and tonics, and more frequently by hygienic measures, such as change of air and residence, by travelling, especially by sea, and by a stimulating treatment to the skin. A very moderate emetic may relieve this condition where other means cannot be conveniently resorted to, or where they have failed of effect. The amount of benefit does not seem to depend upon the quantity or character of the matters evacuated, but upon the change in the vital condition of the stomach produced by the act of vomiting, something as friction of the torpid skin or the energetic manipulation of a disabled joint aid in restoring them to a state of healthy vigor. This condition often occurs in the course of phthisis or protracted catarrh, as well as in many other diseases.

Digestion attended with pain, unless dependent on organic disease, and digestion accompanied by a thickly-coated tongue and a foul taste in the mouth, will be sometimes relieved in the same way, but in these cases there is more likely to be the evacuation of substances that may be regarded in the light of causes of the symptoms, such as vitiated bile, acid liquids, or other secretions of a less obvious but equally unhealthy character.

Besides these, the same remedy may become applicable in a variety of other affections of the digestive organs of an indefinite kind. Among them are those popularly recognized under the very vague appellation of "bilious." These will usually subside under a more moderate treatment, but an emetic sometimes hastens their removal. There are still other cases, still more indefinite, in which the patient's health has been impaired for a long time, but without any such symptoms as are sufficient to indicate its precise nature. The whole series of the assimilating processes, from the stomach to the kidneys, seems to be variously implicated, sometimes more in one part of it and sometimes in another, and yet without a complete failure in any one. Yet the whole nutritive movement is imperfect, and a great variety of secondary symptoms manifest themselves, in the head, the nerves, the limbs, the skin and the several secretions and excretions. The sensations and complaints vary much at different times in the same case, but the fundamental difficulty is probably at all times the same. Cases of this description often pass from physician to physician and from one mode of treatment to another, generally under the comprehensive denomination of "liver complaint"; the liver being the organ to which it is customary to refer a great variety of obscure



affections for which no other locality can be found. They are sometimes signally, though unaccountably and apparently accidentally benefited—chiefly in the hands of empirics—by a succession of severe and protracted vomitings. Not unfrequently, in the hands of those incompetent to judge of the powers of the human system for the endurance of remedies, such patients are essentially injured. It is nevertheless true that this violent treatment is better endured, and is more frequently followed by amendment than would have been expected.

The principle upon which such amendment takes place it is not easy to point out. The following considerations, however, may serve to suggest at least a partial explanation. In cases of this description, although a complete determination of their character is not practicable, it is sufficiently plain that the trouble is somewhere in the assimilating and nutritive functions. Now among the organs performing these functions, the stomach, and those directly associated with it, are the most important. They exercise a vast influence over the others, and are also vastly influenced by them. Impressions made upon them, and changes made in their condition, are propagated to all the rest, and produce a sort of impulse which powerfully affects their condition also. The whole of these associated functions are in a torpid or some other abnormal state, and a powerful impression made upon some one is imparted to all the rest, a new action takes place, and the condition of the whole is changed. This is particularly so when the impulse is given through the stomach, which is dominant among them; but it may be also communicated at other points, as through the lungs by a great change of the air breathed—by a direct change in the character of the blood, as by excessive stimulation—by a succession of powerful sweats—by copious diuresis, as in the use of mineral waters—or by copious and continued purging. These measures may all operate upon the same principle, by producing a powerful impression upon some one of a chain of associated functions, in consequence of which a change is induced in the condition of all the others.

The adoption of such expedients is certainly to be regarded as exceptional; they are liable to great abuse, and are to be resorted to with much caution. They have been chiefly in the hands of persons quite incompetent to employ them with discrimination, and who have not had that knowledge of diseases and their remedies which enables them to judge what are the circumstances under which they have happened to prove serviceable. Hence, no practical lesson has been derived from them, and we are much in the dark as to any principle upon which they may be resorted to with advantage. It will be admitted, by those who are in the habit of watching the subsequent history of cases which have resisted the treatment of regular practitioners, and pass, as they all do, through the hands of various empirics, that occasionally very

remarkable recoveries take place under modes of management which they would not dare to employ. A careful observation of such cases, and of the conditions under which improvement has taken place by the employment of modes of practice such as are here referred to, may enable us at last to understand these conditions, and how we may safely adventure upon them ourselves.

In various conditions of the lungs, vomiting will be found a means of present relief, even if not of permanent benefit. It influences these organs in two ways—by aiding the expulsion of the secretions from the air passages, and by modifying the movements of their circulation. It is easy to see how these purposes are effected. We find examples of the advantages thus derived, in asthma, in some of the catarrhal affections of children, and of the bronchitis both of children and adults, where the air passages are choked up by an abundant secretion of mucus that cannot be discharged by coughing, and occasions great oppression and even threatens suffocation. In some protracted cases of bronchitis, where it is passing into a chronic form, vomiting will also sometimes arrest the tendency, and produce a change in the condition of the parts which is followed by speedy recovery.

Spasmodic affections of almost every kind, wherever they occur, are very much under the influence of the act of vomiting. This power of the stomach in vomiting, over spasm, is quite distinct and remarkable. Independently of the evacuation of its contents, this mere act tends to the suspension of spasm. Thus in the convulsions of children, in epilepsy, in colic, in spasmodic croup, in asthma, relief usually follows it, although nothing may be evacuated which could be supposed the direct cause of the morbid state. Even in membranous croup, the occasional paroxysms of increased dyspnoea, that probably depend upon a combination of a spasmodic element with the mechanical obstruction to respiration in which the disease essentially consists, are distinctly relieved by vomiting, though it does not contribute at all to the final recovery. It is probably upon the temporary alleviation thus procured that has been founded that reliance on the efficacy of continued vomiting in the treatment of the disease, from which the medical mind has not yet been wholly disabused.

It is to be remarked that the statements thus made are not intended to recommend emetics as a means of treating any particular diseases, but rather as illustrations of the influence they are capable of exerting over morbid conditions;—conditions that may arise in a great variety of diseases. There is no one disease which vomiting can properly be said directly to remove, and yet there is no one disease in which circumstances may not arise where vomiting will contribute indirectly, in a very important manner, to its removal, upon the principle of recovery formerly pointed out. But although the conditions under which vomiting is



applicable are so many, it is not to be understood that they are of very frequent occurrence, or that it is to be indiscriminately employed whenever they are present in any degree. Indeed, in a large proportion of cases, these conditions present themselves in such moderate intensity, and where the disease is so mild in its character, that they do not require a remedy so severe and disagreeable. For the most part, a patient waiting on the natural progress of events, a careful regulation of the general management of the patient, and a judicious employment of palliatives, are all that is necessary. The important point in practice is to determine when the urgency of circumstances is such as to render a resort to it indispensable or expedient.

And in connection with this, it should be stated that moderate vomiting is by no means so exhausting a remedy as its apparent violence might lead one to suppose. Its first effect, indeed, is often rather to rouse the patient and produce a feeling of invigoration after the immediate operation is over. This is especially the case where continued oppression or nausea has preceded, or where the stomach is restored by it to its appetite and its power of digestion. There is hardly any of the more powerful remedies which is attended with so little subsequent exhaustion, when resorted to in the proper case and in a suitable manner. Where, for example, in the advanced stages of disease, or in any state of weakness, food has been taken which lies undigested in the stomach and produces oppression, it may be got rid of by a proper emetic at less expense to the system, than by carrying it through the whole course of the alimentary canal by means of a cathartic. It is very different, however, where violent and continued vomiting is produced by harsh and irritating emetics, such as antimony and lobelia. The effects of these are sometimes very exhausting, they may produce spasmodic efforts of great violence, and hazardous inflammation. A dangerous condition may be thus induced, and the result is sometimes fatal. In this way the lives of young children have been known to be lost under the unexpected violence of the operation of what is regarded as a safe dose of antimony; and although this extreme result is rare, yet a very alarming degree of prostration from it is common enough to render it most prudent not to employ it as an emetic in this class of patients. During the prevalence of what was called the "Thomsonian practice," I have known more than one person, whose life there was no reason to regard as in any immediate danger, who were yet speedily destroyed by the violent vomiting that followed the use of powerful and drastic emetics. With due prudence, however, emetics are always safe, and I am satisfied that, as a consequence of the growing reluctance among physicians to the administration of the more active remedies, emetics are less commonly prescribed than would be useful, and that they might be more frequently employed than is now customary, for the removal of many symp-

toms not positively dangerous, but which produce much discomfort, and sensibly protract recovery.

(To be continued.)

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### CASE OF HYDROPHOBIA.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—The following is a brief sketch of a case of hydrophobia that occurred in my practice at Saugus Centre.

On Sunday, the 7th of last April, a large mastiff was left by its owner with Mr. John Fitzpatrick, to be kept for a short time. The dog was confined in the wood-shed, but was out most of the time during the day, in and about the factory where Mr. F. worked. He was ill-natured, cross, howled in the night, and some persons considered him sick, perhaps mad. Had a wild expression to his eye, was savage, jumped at people. On the 9th, Tuesday, he was seen to vomit before breakfast; ate soup for dinner.

On Wednesday, the 10th, he was let out at noon; had had no water for eighteen hours; ran into the house, and seized the little girl by the arm, but left no mark. She then got a dish of meat from the pantry, and was carrying it across the kitchen, when he jumped at her again and slightly bit her under lip, on the left side near the angle of the mouth, striking her left temple and cheek so hard as to cause swelling and discoloration. The dog then ran about the streets, into several houses and sheds, and attempted to bite several other persons. He was panting, frothing at the mouth, and appeared much excited. It was now evident to all that he was mad, and a general turnout of the people took place. Attempts were made to kill him, but he escaped and ran to Lynnfield, seven miles distant. Several persons who saw him panting, frothing and snapping about, pronounced him mad. He was pursued, and at length despatched with an axe by Maj. Mansfield.

A little blood flowed from the lip; and the wound was carefully and repeatedly washed with water, tobacco-juice, beet-juice, and other domestic washes of no consequence. Healing took place in a few days. No physician was called, and no particular fears were entertained as to the result.

She continued in good health until the 31st of May, except that about the 20th of May, while standing in her class at school, she had a slight spasmodic motion about the throat, like choking, or catching the breath. The teacher observed it, and allowed her to leave the class. Learning from other scholars that Julia had been ill in school, her mother asked her about it, and she replied that she "had a faint."

On Friday, the 31st of May, she was quite lively until evening, when she complained of headache. During the night her mother went into her room three times. The first time she asked her if



she was any better; the reply was, "no." At the second visit, she said that she ached all over. At the third visit, about morning, she was asleep, for the first time during the night probably, and slept for a short time. She then was asked if she was not going to get up as usual; she replied, "I would rather lie." Some sen-na tea was brought, but she could not drink it. The sight of it caused distressing agitation and shuddering. Enough was swallowed, however, to move the bowels in the afternoon.

During the day she took no nourishment; was easily excited; the sight or sound of water caused apparent choking. I was called to her about 5½ o'clock, P.M., and found her dressed and lying upon the sofa very quietly. She answered all questions promptly. Face flushed; a wild expression of the eyes; pupils dilated; tongue furred and moist; no appetite; pulse 90, and feeble. Complained of headache, thirst and heat. She sat up, and attempted to drink some water. She shuddered and trembled badly as she resolutely seized the cup, saying, "now I will drink it." The effort was attended with spasms of the muscles of the throat and chest; most of the water was spilled on her neck and clothes.

Taking the history of the case in connection with the present condition, hydrophobia was clearly made out. Ordered a full dose of morphia.

June 2d, 9 o'clock, A.M.—Found her on the sofa, dressed; had no sleep; from 12 o'clock to 3 lay quiet, with the eyes open, looking about rather wildly. Is much worse; pulse 100, feeble; pupils dilated; looks anxious and wild; is easily excited by any sudden motion or noise, as moving the pillows, the approach of persons, or shutting the doors; mouth clammy; keeps wiping tough, frothy mucus from her mouth, which gives her much trouble; often calls for her handkerchief; uses it quickly, and throws it aside. She lies down and gets up again in rapid succession, and sometimes with almost convulsive violence. Tried to swallow some medicine, but failed. Spasms increased in force and frequency, and appeared to prostrate her very much. She cried out most piteously, "mother, squeeze my hand"; "carry me up stairs"; "come to me, father"; "come to me"; "lie down by me, and let me go to sleep." Then she embraced her father, and for a minute or two was quiet. The distress soon returned, and she pressed her hands to her throat and chest, crying out, "I am dying," "do kill me," "I am almost dead." She inhaled chloroform for a short time (being held with difficulty), and was somewhat relieved, and able to swallow some nourishment while partially under its influence. The relief was transient, the spasms returned, and she died easily, about 2 o'clock, P.M.

The unfortunate victim of this awful calamity was a bright and promising girl, 10 years old. It is the only case of this terrible disease that has occurred in this vicinity for many years. It has sent a thrill of horror throughout the entire community.

Until science finds a remedy, let us have a more stringent dog law. When will people learn that dogs are liable to disease, and that keeping them is an expensive and dangerous practice?

Yours truly,

JAMES M. NYE, M.D.

Lynn, June 10, 1861.

CASE OF SUCCESSFUL REMOVAL OF ALL THE CARPAL, AND PARTS OF ALL THE METACARPAL BONES.

BY E. S. COOPER, A.M., M.D., PROFESSOR OF ANATOMY AND SURGERY IN THE UNIVERSITY OF THE PACIFIC, SAN FRANCISCO.

[Communicated for the Boston Medical and Surgical Journal.]

EXCEPTING among practitioners of San Francisco, it is rare that surgeons attempt the cure of a patient laboring under disease of the tarsal, carpal, metatarsal, or metacarpal bones, without either removing all the bones that are diseased or amputating the limb. The latter operation is often performed where the disease of bone is extensive, though, I am happy to say, not in San Francisco among the better-informed surgeons. It is a very common thing here to cut down upon, and remove a portion of each, found diseased, without removing them entire, even when the bones are very small, as the carpal and tarsal bones. Experience has taught surgeons of this city that by removing the diseased part of a bone, and afterwards leaving the wound open until the surface of the remaining portion is covered with healthy granulations, there is little cause to follow the general directions of authors upon this subject, viz., to remove the entire bone when found diseased.

The following case is similar to many others which have occurred in my own, as well as in the hands of different practitioners here.

CASE.—Mr. M. A., æt. 39, Scotchman by birth, of good constitution and temperate habits, was admitted into the Pacific Clinical Infirmary Nov. 10th, 1857, in consequence of a disease of the wrist of three years standing, produced by a severe bruise caused by two pieces of heavy timber rolling together and catching the part between them. Several sinuses leading to the bones were found, and evidences of caries wherever the probe was introduced.

*Operation.*—An incision six inches long was made on the dorsal surface of the wrist, the centre of which was over the carpal bones. A transverse incision was then made at the centre of the first, of an inch and a half in length, down to the bones, after which the soft parts were removed and the disease in the bony tissue fully exposed. A portion of the tendons of the *extensor digitorum communis* muscle was divided, for the purpose of obtaining more room through which to extract the bone, and which cannot be objected to on any ground, because of the certainty with which



we can anticipate a reproduction of the parts, and which accordingly occurred.

Every one of the carpal bones being found much diseased, they were all removed. The base of the metacarpal bones being affected, that portion of each was removed. The carpal bones were removed with the chisel, assisted occasionally by the bone forceps.

After removing all the carpal bones, the interosseous muscles and other soft tissues were removed from the base of the metacarpal, as far as these were found diseased, when the bones were divided by means of the bone forceps, and the affected portions removed. The instrument used in this case was much larger than bone forceps generally, and had long straight blades, by which it was an easy matter to remove one half of each of these bones. The wound was then fully cleansed, and a careful examination made to see if any disease existed in the remaining portions of the metacarpal bones. None being found, the wound was filled with lint wet in an evaporating lotion, and a roller applied around the limb as tight as the patient could conveniently bear, commencing at the fingers and continuing up to near the elbow. This dressing was retained without change for seven days, being kept constantly wet with the evaporating lotion during the time. At the end of that time, the roller and lint were changed for fresh materials, and poultices substituted for the lotion, the poultices being applied on the outside of the roller. The lint and roller were changed every alternate day. The hand and wrist, including the surface of the wound, were covered every day with tincture of iodine. Motion was instituted at the end of the third week, in order to ensure mobility in the newly-developed parts constituting the wrist. This was effected with very little pain to the patient, and continued throughout the convalescence, the forced motion being made every alternate day for about three months, when the wound had healed by the process of granulation, and nearly cicatrized. The motions of the wrist were very fair, though not perfect.

The patient had at this time full power in the hand and wrist, so far as depended upon the flexors of the arm, but the extensors had much less power. This, however, was gradually restored until the end of the year after the operation, when the limb was restored to a degree of usefulness almost equal to its condition prior to the disease. The arm and hand were shortened about one inch, which, however, was scarcely noticed except when compared with its fellow.

*Remarks.*—The method of keeping the wound open, as pursued in this case, is in accordance with my universal custom in the after treatment of surgical wounds made in operating upon the bones. Though in this case there was no exfoliation of bone during the convalescence, this is a frequent occurrence, and for this reason no such wounds should be made to heal otherwise than by granula-

tions; because if we promote healing by first intention on the outside, and exfoliation should occur, it will be a source of great local if not constitutional irritation, provided the exfoliated bone be confined within the limb. By keeping the wound open, however, and causing it to heal entirely by granulation, the detached bone, if any exists, will find an easy egress.

The second consideration is that of keeping lint in the wound and a roller tightly around the limb, the granulating surface as well as the adjacent parts thus becoming so consolidated as to prevent the accumulation of purulent matter in any of the neighboring parts, the condition most to be feared after these operations.

May, 1861.

## Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE OBSTETRICAL SOCIETY OF BOSTON.  
BY WILLIAM READ, M.D., SECRETARY.

MAY 4th.—A paper was read by Dr. READ upon "The Formation of Knots on the Umbilical Cord." The object of the paper was to prove that the knots which are found on the cord of the human foetus at birth, are tied by the passage of the child through a loop of the cord lying loose round the internal os uteri, at the time of delivery, and at no other time; contrary to the general opinion which prevails, that they may be tied at any period of intra uterine life by the foetus in its gyrations passing through a loop of the cord. (This paper will be published in the *Am. Jour. of Med. Sciences*.)

Dr. J. HOMANS remarked that he had had several cases in which knots had been found tied on the cord, but in every case the children were born alive. His opinion was that they were tied at birth.

Dr. WELLINGTON reported a case (at the time of the report still under treatment) which he considered remarkable from the complications present. The following report has been furnished by Dr. W. since the termination of the case.

Mrs. H., aged 23, married, is now (May 4th) under treatment with the following complication of diseases:—

1st. *Stricture of the Rectum*.—This is a tight annular stricture, one and a half inches above the anus, hardly large enough to admit the passage of the little finger, and feeling like a thickened annular fold of the mucous membrane. It commenced three years since, and has been gradually growing very troublesome. There is a constant discharge of mucus from the anus, and occasionally considerable hæmorrhage. There is severe pain in defæcation, especially if the bowels are allowed to become costive; the calibre of the fæces is very small, and the patient is much troubled with flatulent distension of the bowels. She has hitherto supposed the trouble to be "piles," and has applied various remedies under that supposition, but without relief.

2d. *Whooping Cough*.—This has existed about five weeks, and has been complicated with bronchitis. She thinks she has never had the disease before. The paroxysms of coughing are severe, so that she is unable to retain her urine during their continuance.



3d. *Pneumonia*.—This commenced on the 2d inst., with chills, headache, &c., and seems to be confined to the lower portion of the left lung. There are dulness on percussion, rusty sputa, bronchial respiration, rapid breathing, rapid pulse, &c. She is a little delirious.

4th. Being between six and seven months pregnant, she miscarried on the morning of the 3d instant. It was a *side presentation*; after the rupture of the membranes, the ribs and pelvic bones of the right side were felt at the vulva. The delivery was easily effected by introducing one finger and drawing down the feet. The fœtus was dead.

The above case presents a somewhat unusual complication, and the prognosis is unfavorable.

P. S.—She gradually sank, and died on the morning of the 6th inst.

Dr. PUTNAM said that he had seen two cases in which spontaneous evolution took place. One was a twin case. In this the arm protruded when he saw the patient first. The side came down more and more, till finally the breech emerged. The process was about half an hour in being completed. The child was born alive. In another case, he was called in consultation. It was a first child, and very large. It weighed nine and a half pounds. The side, as in the former case, presented.

Dr. READ said the result of these cases, to the children, they being both born alive, was the exception to what Prof. Simpson, in his paper on "Spontaneous Evolution," has stated to be the invariable result—death. He would refer to a case which was under his own care at the Lying-in Hospital in this city, in which spontaneous evolution took place. This case was also seen by Dr. Dupee, his colleague at the Hospital at that time. It was also a twin case. The labor was about six and three quarter hours in duration, from the time when the pains really set in till the birth of the first child, which presented by the left shoulder. The child was alive after the body was born, but died before the head could be extracted.

Dr. J. HOMANS mentioned a case in which a hand presented, and two or three hours afterwards the head was found coming down. The hand did not retract, and the child was born with the hand along side the face and head. In this case the pelvis was very capacious, and although the labor was very tedious, the child was born alive.

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EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

APRIL 8th.—*Knots in the Umbilical Cord*.—Dr. READ showed an umbilical cord upon which was a double knot; the two knots having been tied, apparently, one upon the other. The cord was about thirty inches long, and was coiled once around the child's neck and arm at birth. Dr. Read maintained that these knots, like all knots on the umbilical cord, were tied by the child passing through a loop or loops of the cord about the internal os. The knot under consideration was made by two loops, separate from each other, and arranged about the os, through which the child's head passed in the delivery, and they were tightened when the cord was put to its tension after the delivery. Under ordinary circumstances, this peculiar arrangement of the loop would have formed two separate single knots, at the distance of a few inches from each other, but from some cause the passage of the one

first formed was obstructed at the other loop, and they became tied upon each other, as in the specimen shown. Dr. Read demonstrated on a cord the manner in which the knots must have been formed, and the ease with which, by one motion or manipulation of the string, the most complex knots could be imitated.

APRIL 22d.—*Malignant Disease of the Thigh.* Dr. TOWNSEND reported the following case.

Mr. ———, aged 56, of a vigorous frame and active habits, until 50 years of age. His father died of cancer of stomach. In February, 1859, he slipped upon the ice, but did not fall, after which he became lame. He consulted me for the first time, the latter part of May. There was an apparent lengthening of the right leg, his walking being like that of a person with hip disease. He was recommended to rest as much as possible in a horizontal posture, and by the advice of Dr. Hayward, who saw him in consultation, in July, an issue was opened over the trochanter.

On making him a visit, in company with Dr. Hayward, on the 2d of August, he made an effort to pull out a drawer from a small table, which fell to the floor, and on stooping to catch it, the right femur was fractured at its upper third. The limb was placed in extension splints, and at the end of six weeks there was evident union in the bone. About the first of October, an enlargement commenced over the region of the fracture, attended with pain and pulsation, and on applying the ear to it, an aneurismal thrill was very apparent.

On the 1st of December, a thickening of the integument, attended with tenderness on pressure, and pulsation, was detected an inch above the external malleolus; the same thrill was found to exist in this, however, as it extended up the leg, which soon became soft, and apparently ready to burst.

His health remained good during the first half of the year 1860. At one time he had several boils, one of which was attended for some time with a bloody discharge—tumor of the thigh becoming more prominent, and the leg shortening, it being now four inches shorter than its fellow.

On the 16th July, he was attacked with severe pain in the left lumbar region, he voided bloody urine for two days, attended with incessant vomiting; it then entirely subsided.

In February, 1861, there was œdema of the scrotum and of the limb, nausea, and emaciation; and shortening of the limb six inches. The nausea was a prevailing symptom until his death, which occurred on the 16th of April.

During this long confinement of twenty months, in a horizontal position, he had his fæcal discharges through a hole in the mattress, and was enabled to have his bedding changed weekly, by means of an ingenious hoisting apparatus, constructed purposely for him; and all excoriation of the back was entirely prevented.

Dr. ELLIS reported the autopsy as follows:—

The upper part of the right thigh-bone had been destroyed by a tumor, about six inches in diameter, of moderate consistence and of a yellow color, with many portions deep-red, as from the effusion of blood. In various parts of this, large fragments of bone were felt, and at opposite points the deeply-eroded extremities of the diseased thigh-bone. In the lower third of the fibula was a similar, but much smaller growth, which had destroyed the bone in the same manner.



The right pleural cavity contained perhaps three pints of serum; the left, considerably less.

Just beneath the pleura of the left lung, were a few small, whitish, encephaloid growths. Lungs œdematous, but, in other respects, healthy. Some serum in the peritoneal cavity.

In the left kidney were a number of whitish or yellow encephaloid growths, most of them quite small, but one was between two and three inches in diameter. The other kidney was similarly affected. In the largest of these growths, and certainly, in one of the smaller, dark hæmorrhagic portions were seen, similar to those in the external growths.

Several fragments were examined microscopically, but, in all of them, unfortunately, degeneration had progressed so far, that nothing was found but minute globules and granules.

MAY 13th.—*Enormous Œdema complicating Pregnancy.* Dr. E. D. G. PALMER reported the following case.

"Mrs. D., aged 31 years, now in her first pregnancy, was seen for the first time on the 22d of April last. I was requested to visit her on account of an unusual swelling of her person, which had taken place within a week, and caused considerable uneasiness and alarm. Her health had always been good. She was lying upon her back, in bed, with the thighs as far apart as possible, and had been obliged to keep in this position for several days. On examination, both lower extremities were found to be œdematous; and, projecting down between the separated thighs, were the labia externa enormously distended by serous infiltration, equalling in size and resembling in appearance the expelled breech of a fully-developed fœtus. The abdominal wall was very firm, and unyielding to pressure by the hand. The respiration thoracic. Pulse 80. Urine scanty, and, on subsequent examination, shown to be albuminous. No other signs of disease were manifest. Her last menstruation occurred about the first of September; she had thus nearly completed her eighth month of gestation. The treatment employed consisted principally of diuretics, and the occasional use of laxative doses of sulphate of magnesia. This course was persevered in for a week without any appreciable effect on the swelling, though the quantity of urine voided was increased in slight degree.

"At this period, May 1st, Dr. Storer saw the patient with me. It was thought advisable to induce premature labor, in order to relieve her from her present uncomfortable condition, and to avoid, if possible, the risk of too great exhaustion, or perhaps convulsions, which, we feared, might occur, were she left to complete her full term. Febrile symptoms had already begun to show themselves by flushing of the cheeks, an increased frequency of pulse, and thirst. She passed restless nights, with little sleep, and complained of fatigue. The decision arrived at in consultation was made known to the patient and her family. Their consent was not given until the following day.

"Upon examination, May 2d, several whitish patches or vesications were seen upon the mucous covering of the labia. Some of these had ruptured, and there was oozing of a dirty and very offensive fluid from the parts. The swelling had slightly diminished. Pulse 96. The os uteri was easily reached, the finger carefully passed through into the uterus, and the membranes separated from their attachment to it, without rupture. On the next day, I was told that there had been

some pain in the back, lasting a short time and then subsiding. The operation of the preceding day was now repeated, and the membranes somewhat more extensively detached. On neither of these occasions did she appear to suffer any increased fatigue or much inconvenience from my interference. I now concluded to await the effect of the efforts already made. The remedies used prior to May 1st had been discontinued, the only means since employed being such as were likely to promote, as far as possible, the patient's comfort, sustain her strength, and procure rest at night. There were no indications of approaching labor, other than occasional pains in the back, until Sunday night, May 5th.

At my visit on Monday morning, I found that labor pains had commenced during the night, and that the liquor amnii had been discharged towards morning. On placing the ear over the abdomen, could hear the tick of the fetal heart. Presentation by the vertex. During the forenoon the os uteri continued to dilate slowly, the pains being feeble and occurring at long intervals. At 3 o'clock, P.M., there being full dilatation, but no expulsive power, I applied the forceps. The child, a female, was stillborn. The cord was much shrunken. Considerable fœtid gas followed. Shortly afterwards, the breech of a second child was presenting; when within convenient reach, its delivery was assisted by the application of the blunt hook. This was also a female and stillborn; the upper portion of its body, when born, was enveloped in the membranes, with the placenta resting on its head like a cap. The other placenta soon followed, the two not being united in this instance. No hæmorrhage ensued. The mother was much exhausted, but was able to talk, and take some stimulants which were directed for her. The pulse was distinct at the wrist, and there was no fainting. In the course of an hour I left her, and returned after about two hours' absence. Was informed that she had had some sleep. Found her in a state of stupor, from which she would arouse when spoken to, and then relapse. She at length became comatose, and died at 7 o'clock in the morning. No *post-mortem* examination was allowed.

## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JUNE 27, 1861.

REGISTRATION OF MEDICAL PRACTITIONERS.—We gladly publish the following letter, as it indicates that the want of a Medical Registration Act is felt in other places as well as here:—

MESSRS. EDITORS,—I read with interest this morning your editorial on the "Registration of Medical Practitioners," and I think if this can by any means be accomplished, it *should be done*. In Pennsylvania, after the first of July next, the law of registration is to go into operation. I made the effort last autumn to get the matter before our Legislature, but not being very successful I concluded to defer it until the next session: in the meantime, however, let us stir up the medical societies and agitate the question, that we may ensure success. The law should require that every practitioner of medicine



should see that his diploma be recorded in the city or town in which he resides, a non-compliance with which should subject the delinquent to a fine, as in Pennsylvania, of *fifty dollars a day*, together with apartments in the State Prison. Thousands of persons are sent to an untimely grave by irregular practitioners. But, says one, patients are not obliged to employ them. To be sure they are not; but inducements are held out to them which, however unreasonable to the educated, easily deceive the ignorant. A word in regard to *quack medicines*; the proprietor should be obliged to *publish the formula*, or pay a heavy penalty. The lawyer is encouraged and protected, and so are almost all other professions; and why, I ask, should not the physician receive the protection of the State?

Yours, &amp;c.,

Taunton, June 20th, 1861.

S. P. HUBBARD.

VISIT OF THE MEDICAL COMMISSION TO THE FORTS.—*Messrs. Editors,*—The large number of our medical brethren who improved the opportunity so kindly afforded them by the invitation of the newly-appointed Surgeon-General of the State—Dr. WM. J. DALE—to accompany the Medical Commission on a visit to the forts in our harbor, shows how welcome are the occasional days of recreation gained by the busy practitioner, and also proves the interest taken in the special objects of the excursion. I doubt not that all who joined in the latter will most heartily unite with me in expressing the real enjoyment which attended it throughout. Circumstances were eminently favorable, and the management of the expedition deserves the highest commendation.

Our harbor—beautiful always—never appeared more picturesque and delightful to the eye; and the day was one for a trip of the sort, which, to say the least, could not be surpassed. The sky—overcast for many of the hottest hours, became cloudless as the day wore on; and the ocean-breezes brought to our city-jaded frames that sense of delicious listlessness and placid content which every voyager—even for short distances—has experienced in calm and fine weather. The party, numbering some fifty physicians of Boston, with the Adjutant General, left Commercial Wharf at 10, A.M., in the steamer *Pembroke*, which had been kindly placed at their disposal by His Excellency the Governor. The run to Fort Independence was soon made, and a peaceful invasion of the “Castle” soon took place. On entering the fortified area, or parade ground, the garrison, consisting of the 4th Battalion of Rifles, was found drawn up in line, and their “present arms” was gracefully acknowledged by the stalwart Surgeon-General, who acquitted himself, everywhere, as if “to the manor born.” The troops then went through a series of well-executed manœuvres under the direction of Major Leonard, their commanding officer, whose whole bearing was that of the thorough soldier. The Fort seemed scrupulously clean; and the men all looked well, and were in excellent spirits. We cannot forbear mentioning, in this connection, the excessive glare of the sun upon the white earth composing the drill-ground at both the forts. That this must be exceedingly trying to the eyes of the troops, is certain. One of the officers showed unmistakable signs of its effects, and, indeed, spoke of them in my hearing. If not contrary to military rules, why should not these spaces be covered with turf? A closely shaven sward would answer perfectly for parade purposes, and the relief to the eyes of the soldiers would be very great.

The party subsequently visited Fort Warren, as well as Long Island, the camp ground of Col. Cass's regiment, and inspected all the hospital accommodations for the troops, being received with ready courtesy by the officers, both military and medical, at each station. So far the office of Surgeon would seem to be almost a sinecure, so little sickness did we find. At Camp Wightman, the surgeon reported only one man very sick; he was suffering from typhoid fever. At Fort Warren seven men were in the hospital, one afflicted somewhat severely with inflammatory rheumatism. We were glad to learn that although Col. Cass's regiment had been subjected to unusual privations and exposure at first, the health of the troops had not materially suffered on this account.

The social features of the excursion, which alternated with and concluded the more arduous professional investigations of the occasion, may not be specially mentioned, except that they were fully in keeping with the well-known hospitable disposition and *bonhomie* of the worthy Surgeon-General.

The hearty cheers which had been given and returned at Fort Independence, were renewed as the Pembroke steamed away, "outward bound," from Fort Warren; passing the School-ship Massachusetts, which dipped her flag in answer to the salute from the Pembroke, and also paid us the compliment of *manning* her yards with her *boys* on our return. While we ran along in sight of the South Shore, towards Minot's Ledge, with its famous Light-house, detachments of our company were successively and peremptorily ordered to go below, and were put—not in irons—but around a bountifully-spread table. As was natural, the patriotic element was by no means dormant on this pleasant occasion, and the harmonious voices which united in singing the Star-Spangled Banner and other patriotic melodies, showed that the members of the profession present were votaries of Apollo in his æsthetic as well as his scientific attributes. Resolutions of thanks to the Surgeon-General, likewise to Capt. Berry, Assistant Quartermaster Lee and Purser Canning, were also adopted. A committee, consisting of Drs. George Hayward, John Homans and Ezra Palmer, Jr., was also appointed, to present to the Governor the acknowledgments of the company for the arrangements made by his authority, by which their comfort and enjoyment were so much promoted. It was generally agreed, by all on board, that they should be ready to inspect the forts at least once a week during the summer.

We shall all, Messrs. Editors, long and gratefully remember our delightful sail on Saturday, June 22d, 1861, in the Pembroke, under the generous auspices of Surgeon-General Dale, M. V. M. "Three times three," gentlemen, if you please!

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RHODE ISLAND MEDICAL SOCIETY.—The fiftieth annual meeting of this Society was held in Providence, on Wednesday, June 19th. Arrangements were adopted for the formation of Committees or Sections, to report facts obtained in the State, in the several departments of practical medicine, surgery, obstetrics, and collateral sciences; and Chairmen in these four departments were appointed. Other plans were adopted, for the formation of a permanent cabinet, and for more frequent meetings of the Society. Papers were read by Dr. Edwin M. Snow of Providence, Dr. T. K. Newhall of North Scituate, &c. Dr. Snow presented an elaborate account of the disease lately prevalent among swine, with views illustrating the nature and causes of the cattle-disease, and of epidemics. The results of numerous autopsies of swine were given in detail, as recorded by



Dr. G. L. Collins; and the evidences were strong that the disease is not merely local, but affects the blood, and shows itself in many different organs, being more analogous to typhus than perhaps to any other known human disease.

The following officers of the Society were elected for the ensuing year:—Chas. W. Parsons, *President*; Henry E. Turner and Jarvis J. Smith, *Vice Presidents*; H. G. Stickney, *Recording Secretary*; E. A. Crane, *Corresponding Secretary*; G. L. Collins, *Treasurer*; T. C. Dunn and T. Newell, *Librarians and Cabinet Keepers*; D. King, O. Bullock, G. L. Collins, J. W. C. Ely, J. H. Eldredge, W. A. Shaw, S. Clapp and C. H. Fisher, *Censors*.

Dr. D. Homer Batchelder was appointed orator for the next annual meeting.

The Trustees of the Fiske Fund announced that they had awarded a premium of one hundred dollars to a Dissertation on "Aneurism, its varieties and their appropriate treatment," bearing the motto, "*J'ai tenté de laborer un petit coin du vaste champ de la chirurgie*;" and on breaking the seal of the accompanying packet, they found the author's name to be Daniel Dennison Slade, M.D., of Boston, Mass. They had also awarded an equal premium to a Dissertation bearing the motto "*Præstat Naturæ vocē doceri, quàm ingenio suo sapere*;" and the author was found to be E. S. Gaillard, M.D., of Baltimore, Md. Other essays of great merit were offered on both subjects; and one upon the first subject, bearing the motto "*Bella, horrida bella*," was considered as especially entitled to honorable mention.

They propose the two following subjects for 1862:—

I. What evidence is there that inflammatory and febrile diseases have undergone any general change of type?

II. Gun-shot wounds; particularly those caused by recently-invented missiles.

For the best dissertation on the first subject, they offer a premium of one hundred dollars; for the best on the second subject, they offer a premium of fifty dollars.

Dissertations should be sent, expenses paid, to Dr. S. A. Arnold, Secretary of the Trustees of the Fiske Fund, Providence, R. I., on or before May 1st, 1862. Each dissertation should be marked by some motto, and accompanied by a sealed packet, bearing the same motto on the outside, and the author's name and residence inside. Packets accompanying unsuccessful dissertations will be destroyed unopened. The awards will be announced at the annual meeting of the Rhode Island Medical Society in June, 1862.

VERMONT MEDICAL SOCIETY.—SEMI-ANNUAL MEETING.—The Vermont Medical Society met on Wednesday, June 19, in Rutland, the President, Dr. Morgan, of Bennington, in the chair. The subject of Diphtheria was taken up and very ably discussed by Drs. Cushman, Griswold, Knowles, Woodward, McCollom, Huntington, Cochran, Pond, Cook, and the President.

On motion of Dr. McCollom, the Chair appointed as a committee to report upon the qualifications of candidates for membership to their Society—Drs. Love, Griswold and Knowles.

The Society met Thursday, June 20th, at 9 o'clock, A.M., pursuant to adjournment. The business committee reported for discussion—1st. Diphtheria. 2d. Placenta Prævia. 3d. Injuries of the Hip Joint. 4th. Abscess of the Lungs.

On motion of Dr. Cook, it was voted that the President and Secretary be a committee to designate members of the Society who shall prepare written articles upon some subjects connected with the medical profession, to be read at the annual meeting of the Society.

The discussion upon diphtheria was renewed by Dr. Cushman, after which Dr. Griswold reported a very remarkable case of Abscess of the Lungs. Dr. Perkins reported a case of Phlegmonous Abscess, somewhat analogous to the one reported by Dr. Griswold. The subject of Injury of the Hip-Joint was next taken up and ably discussed by Dr. Cochran, who reported a number of cases. The discussion was participated in by Drs. Paige and Cushman, who reported a number of cases, mostly in females; and Dr. Russ reported a case of fracture of the neck of the femur, in which there was perfect recovery, and the surgeon was sued for malpractice in confining the patient when there had been no fracture. After a contested suit of some years' duration the case was settled, and a few years after, upon the death of the woman, a *post-mortem* examination disclosed

the fact that there had been a very peculiar fracture and perfect recovery. Drs. Bates and Brigham reported cases.

In the afternoon, Dr. Spencer reported a case of Disease of the Knee-joint, and gave the members of the Society an opportunity to examine the same. The subject of Placenta Prævia was called up, when the following named gentlemen spoke on the subject, and reported cases: Drs. Cushman, Perkins and Woodward. Dr. Noble called the attention of the Society to the consideration of Phlegmasia Dolens, which subject elicited many valuable remarks. Dr. Wardner reported a case of Strangulated Hernia, where the use of ether by inhalation remarkably facilitated the reduction of the constricted bowel. Dr. Russ made some valuable remarks upon the same subject, and reported cases of interest—showing the beneficial effect following the use of large doses of opium and the external application of cold to the tumor. Dr. H. R. Jones spoke on the subject, and Dr. Danforth reported a very remarkable and interesting case.

**SMALLPOX AT FORT MONROE—VACCINATION OF TROOPS.**—Smallpox and varioloid having broken out at Fortress Munroe, Gen. Butler has issued an order appointing Dr. Henry A. Martin, of Roxbury, for the special duty of inspecting all the troops under his command, and vaccinating and re-vaccinating such as in his judgment need such protection. In accordance with this order, Dr. Martin took his departure for Fortress Monroe last Thursday. We are requested by Dr. Martin to state that his arrangements for the supply of lymph to physicians will not be interrupted, but that orders directed to his address will be answered by return mail, in precisely the same manner and with the same material as heretofore.

#### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, June 22d, 1861.

##### DEATHS.

	Males.	Females	Total.
Deaths during the week, . . . . .	23	35	58
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	33.3	32.8	66.1
Average corrected to increased population, . . . . .	..	..	74.15
Deaths of persons above 90, . . . . .	..	..	..

##### Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
13	1	1	2	2	0	1	1	0

##### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	29.867	Highest point of Thermometer, . . . . .	85°
Highest point of Barometer, . . . . .	30.058	Lowest point of Thermometer, . . . . .	45°
Lowest point of Barometer, . . . . .	29.576	General direction of Wind, . . . . .	S.W. & W.
Mean Temperature, . . . . .	68°2.	Am't of Rain (in inches) . . . . .	0.23

From Observations taken by Dr. Ignatius Langer, at Davenport, Scott Co, Iowa. Latitude, 41.31 North. Longitude, 13.41 West. Height above the Sea, 729.

	BAROMETER.			Mean Point.	Highest Point.	Lowest Point.	THERMOMETER.			RAIN. Time 00 minutes.	Mean Amount of cloud, 0 to 10.
	7 A.M.	2 P.M.	9 P.M.				7 AM	2 PM	9 PM		
Monday, June 10,	29.39	29.34	29.28	29.345	29.47	29.08	72	83	73	0 hours, 00 minutes.	3
Tuesday, " 11,	29.30	29.35	29.38				76	74	64		
Wednesday, " 12,	29.46	29.46	29.46				65	78	70		
Thursday, " 13,	29.47	29.44	29.37				65	78	72		
Friday, " 14,	29.24	29.12	29.08				70	84	79		
Saturday, " 15,	29.21	29.16	29.31				73	84	66		
Sunday, " 16,	29.44	29.50	29.48				55	68	60		

MARRIED.—At Grass Valley, Cal., May 6th, D. W. C. Willoughby, M.D., to Mary Dunn, both of Forbes-town, Butte County.

DEATHS IN BOSTON for the week ending Saturday noon, June 22d, 58. Males, 23—Females, 35.—Abscess, 1—apoplexy, 2—asthma, 1—congestion of the brain, 1—burns, 1—cancer, 1—cholera infantum, 1—cholera morbus, 1—consumption, 13—convulsions, 2—croup, 1—debility, 1—dropsy, 1—dropsy of the brain, 4—drowned, 1—dysentery, 1—scarlet fever, 2—typhoid fever, 1— hæmorrhage, 1—disease of the heart, 3—infantile disease, 1—interperance, 1—disease of the kidneys, 1—laryngitis, 1—inflammation of the lungs, 2—marasmus, 1—paralysis, 1—peritonitis, 1—premature birth, 2—rheumatism, 1—teething, 1—unknown, 2—whooping cough, 3.

Under 5 years of age, 23—between 5 and 20 years, 9—between 20 and 40 years, 11—between 40 and 60 years, 12—above 60 years, 3. Born in the United States, 39—Ireland, 14—other places, 5.



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No. 22.

LETTER FROM JAPAN.

PORTIONS OF A LETTER DATED KANAGAWA, JAPAN, APRIL 2, 1861, FROM  
FRANCIS HALL, ESQ., FORMERLY OF ELMIRA, CHEMUNG CO.,  
N. Y., TO WM. C. WEY, M.D., OF THAT VILLAGE.

[Communicated for the Boston Medical and Surgical Journal.]

A two days' storm cleared up at sunset, with a gale from the northwest, which makes our frail house tremble in every timber, and fills the air with the surf-roar of the adjacent beach. It has been a timely rain, after a long series of warm, sunshiny days, and now the country will present all the freshness and beauty of your middle of May. Flowers are blooming everywhere; the fields of colewort are golden with blossoms, and wheat and barley are a foot high: for the season is an early one here, full two weeks earlier than a year ago. For a month past we have had the perfection of climate, in contrast the most absolute with the long, tedious, wintry March of the Northern States. I enjoy my walks even more than I did at Elmira, and add thereto horseback excursions of ten, twenty or thirty miles a day. I was reminded of you to-day while I was re-arranging some dried botanical specimens gathered last summer. I recollected when I left home that you had among your shrubbery a *Weigela rosea*, of which you were hoping much, and which you were nursing with great care, near your front door. Some specimens of its blossoms in my hand to-day, reminded me not only of the little shrub in your yard, but of the masses of it which I saw last summer growing wild on the banks of the streams, full of fragrant blossoms. It is indigenous to this country, and everywhere abundant. Side by side with it was the beautiful honeysuckle that we twine about our doors at home, and which is seen running here by every roadside, and among the bushes and trees. So, too, the Wisteria, or Glycine, is as common as the bramble. It is pleasant to see these old favorites growing in such profusion in their native haunts, but I doubt if we prize them as much as our solitary garden specimens, away from their

native land and reared with so much care. In my rambles last year, I obtained many wild trees, plants and shrubs, which I think are new, and of which I shall hope, this year, to secure specimens or seeds.

Of late, I have been more content than ever to remain in Japan. Its physical attractions, taken altogether, are hardly surpassed, I imagine. The beauty of the scenery, the productions of the soil, the equability of the climate—all render this a delightful country in which to live. I become daily more familiar with the language and customs of the country, and among the great deal which I find to please, I find little that really wearies or disgusts.

Thus far it has proved extraordinarily healthy to foreign residents. My friend, Dr. S., never has a case of fever, ague, or continued illness of any kind. Inflammatory diseases, diarrhœa, dysentery, &c., are almost as rare—and coughs and colds are novelties. I have now passed through a second winter without a cold, an experience wholly new to me. Although the climate is at times damp, even rheumatism fails to get a hold here. Cutaneous disorders are common, of obscure character, and not yielding readily to treatment. These have been a good deal of a puzzle to the physicians as to their source and character. Native practitioners are as abundant in proportion to the population, as in the most favored parts of the world. The generality of them are ignorant creatures, using a few simple remedies, and drawing largely upon the credulity of their patients, while there are others who profess no inconsiderable skill.

The Dutch at Desima, of late years, through their physicians resident there, have given medical instruction to a great many Japanese. I frequently see those who have been either under direct tuition of the Dutch, or who have received instruction from the Japanese thus educated. Dr. Van Siebold has accomplished a good work in this respect, and his pupils are scattered all over the empire. The consequence of this has been that not only foreign medical remedies but medical books have been largely introduced into this country, and the better class of the native physicians are acquainted with the uses and effects of the more important of the former, and the revelations of the latter. The desire which we so often see manifested among the people to make themselves acquainted with foreign affairs and foreign knowledge, is particularly evident among the young physicians. They contrive to learn the Dutch names of medicines and diseases, and then proceed to make all the inquiries they can. While many of them are content with a mere smattering of names, others are as truly desirous of making themselves proficient. They retain our nomenclature of the *Materia Medica*, for the most part, and you will hear them talk of calomel, rhubarb, senna, laudanum, Hoffman's anodyne &c. The last is a favorite medicine among them; calomel, too, they use largely, and it is sold as a common remedy in all native drug



shops. A young man came to our house one evening, and we observed him several times take a white powder from his pocket, and sprinkling it on some cakes, to eat it. We were of course anxious to know what it was, and finally ascertained it to be *calomel*. He was taking enough to salivate a horse, or a team of horses, for that matter. We told him what the positive effect of the medicine would be, and he threw what he had left into the fire. Santonine they buy largely, having abundant use for vermifuges. In fact, there is not a remedial agent in your drawers and bottles, but what they either know something of already, or are prepared to experiment with. They have their favorite remedies, which they employ liberally. The Dutch, in years past, were in the habit of importing a quackish mixture, which was put up in brilliant style and inscribed in Hebrew and other unknown characters. I think it was called the "Golden Mixture," or some equally sounding epithet. This took the fancy of the people, and it was largely consumed, until they learned the fact that there were such things as *quack medicines*, when it was at once scouted. Indeed, they are now very discerning in relation to quackery; they understand fully what it means, and are not to be so easily caught. Their merchants, even, comprehend that adulterations are practised in the regular trade.

We do not yet know enough of the practice and remedies of the Japanese physicians to be able to say that they have anything of value to communicate to us.

My friend, Dr. S., was recently called to a case of parturition, where a Japanese midwife was also in attendance. She was the wife of a doctor. I have seen her, and she certainly bears the impress of an intelligent woman; and so Dr. S. found her. She was skilled in her profession, and appeared to have a thorough knowledge, anatomically and physiologically, of her calling.

Surgery is a science unknown among the Japanese, even in its most minor operations, if I may be allowed the expression. Amputation they never resort to. A case occurred last fall, in which a Japanese official was wounded in the arm by a gun-shot. The arm was nearly severed and the bone completely shattered. Drs. S. and H. were, with great reluctance on the part of the authorities, permitted to see the man. They, of course, pronounced amputation not only the best course, but as absolutely necessary to save the patient's life, and proposed to perform it. They were refused, on the plea that, *first*, it would be necessary to obtain permission to such effect from the District Governor; and *secondly*, of the parents of the man, who lived at Nagasaki, seven hundred miles away. The wounded man lingered, as you may suppose, for days and weeks, in the most critical condition, but I understand that he finally recovered, with his arm totally withered, a clog and an incumbrance to him all his life.

I cannot now recall that I have seen a single *cripple*, in the coun-

try, from the loss of a limb; and the very few of any description that I have seen, were beggars by the wayside, suffering from some malformations; but even these cases are exceedingly rare. It is one of the pleasant things of our life that we are shocked neither by deformity nor disgusting subjects of disease, as in China.

Japan is not overcrowded with population; it has a climate of a happy medium between hot and cold, and of great equability; and the means of living are easily obtained. Dyspepsia is not uncommon, owing to an exclusive, or nearly exclusive vegetable diet. Pulmonary consumption prevails to a limited extent, and so far as I can learn, but little fever, rheumatism or ague; in fact, I have not yet ascertained the diseases of which the people *do die*. I think that bowel disorders are frequent, and perhaps fatal. Cholera has raged fearfully, carrying off in Yedo, a few years since, 130,000 in a single season. Delirium tremens, let me say here, is an unknown disease in Japan, where liquor is so abundant and cheap that it forms a part of the daily beverage of nearly every man. The liquor is strongly intoxicating, but it is the pure spirit of the grain, unmixed with noxious drugs.

Cutaneous diseases, as I have said, are very common; not as appalling as in China, but still severe and obstinate to treat. Children with diseased scalps are very plentiful, yet I should say that scrofula was rare, venereal taints having more to do with them, I suspect. Venereal disorders are rife enough, but not so disgustingly obtrusive as I saw them in China, where the malady seems to wear a more malignant type. Effects, visible to the eye, are there seen at every step in the streets; here, only now and then one in a crowd wears the brand of vice and indulgence. The origin of this disease is universally attributed to the Spanish and Portuguese of three hundred years ago, the early navigators to this country. The Japanese, in the treatment of venereal affections, have their own peculiar remedies, but are now using largely from our supplies.

I see a great many blind men, more than I can readily account for, from the prevalence of any eye disorders. The blind are a very interesting class of population, living on charity as they wander from house to house. They are the shampooers; this is their privileged calling. I meet several of them every day, with long staffs in their hands, feeling their way through the streets; or, at night, I hear them crying their occupation, in a loud voice, as they wander about. They are always well clad and look as if comfortably fed, and never lack a helping hand to lead them in any intricate place. It is said that, at Miaco, they have a general order established, and that all attached to the order receive a yearly amount of alms. This order was founded, as you may have read, by a princely lover who wept his eyes blind for the loss of his mistress; or, as another legend says, by a captive warrior who plucked his eyes out, and gave them to his conqueror, since, whenever he looked at him, he desired to take his life in revenge.



Be that as it may, the blind man in Japan is sure to be well provided for. Many of them are physicians, and are supposed to be particularly skilled in *acupuncture*, which we would suppose would require good eyesight. I happened to call at a house, one day, when a young woman who was ill was undergoing the operation. Acupuncture, like the use of the *moxa*, has a general application for all sorts of diseases. In the case which I witnessed, the patient was complaining of severe headache, pain in the side and loss of appetite, an affection not strange among women who dwell in the house, take no exercise, and who consume indigestible vegetables. The case appeared to be dyspepsia, more than anything else. The girl lay on the mat floor, covered with a silk quilt, and by her side was a blind physician, with his little case of long needles. He was a grave, venerable-looking old man, and I was much interested in the care with which he seemed to manipulate. His hands were under the coverings of the bed and her garments, but it was all the same to the sightless old man; he moved them slowly and carefully, as if feeling for a proper place, and then, at long intervals, would select a needle and make the puncture. There did not appear to be any pain in the operation, though occasionally the girl winced a little; yet she was regardless of the old man's presence, and sustained her part in general conversation. The doctor was as unmindful of us and of our talking, as though he had been deaf as well as blind, and his whole attention was absorbed in his task.

Moxa burning is universal, and upon every part of the body. The arms, legs, and upon either side of the spine, are the favorite places, and it is not an uncommon occurrence to see a naked coolie with scars of the moxa at regular intervals, in double rows, down the back from shoulders to hips. If a man has a headache, the moxa may go on his back, but quite as likely on his shins; or if he has pain in his leg, the application may be on either temple. It is a question for investigation whether there may not be some virtue in these remedies when properly applied.

Few escape smallpox, and every other man's face is more or less pitted. You may meet a half dozen children in a single street, presenting different stages of the disease, for those sick with it are not shut up, only as the necessities of each case call for confinement and care. It is a regulation, however, that children thus affected must wear a red cap to distinguish them. Encountering the malady as much as I did, three months since, I had a mild attack of varioloid, and I assure you I am quite relieved in my feelings.

The distinguishing mark of the Japanese doctor's costume is his head, clean shaven of hair. He feels the pulse and looks at the tongue, like any of the regular fraternity, and not stinting his medicines, gives pills, potions and draughts, with true allopathic liberality, or half hides his victim under plasters. For all this he

exacts no fee; whatever his patient chooses to give him, is his reward. An ichibu, *per diem*, would put him in the highway to fortune.

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DR. WARE'S LECTURES ON GENERAL THERAPEUTICS.

LECTURE VI.—(Concluded.)

BUT emetics are not to be administered on trivial occasions, and their frequent employment as a routine method of practice for slight ailments is unnecessary and in some degree injurious. It is better for the health and constitution of a patient, on the whole, that the system should be suffered to contend with all milder attacks by means of its own energies, aided by a careful attention to hygienic rules, than to help it over the difficulty by foreign assistance, even although this should accomplish the purpose sooner. It may be more acceptable to the patient, perhaps, to get rid of an indigestion or carry off the symptoms called "bilious" by an emetic, however disagreeable the remedy, than to wait the slower process; but I conceive that the natural powers of the organs are likely to be left in a better condition by the latter method. It seems at first as if it were very desirable to break up an acute disease, like fever, at its onset; yet it is certainly open to inquiry, whether the gradual course of processes in which the disease consists may not answer an end to the economy that would not be done by the operations which cut them short, supposing this could be done. It is unfortunate that questions of this sort, so important to be determined, are yet so difficult of solution.

Still, when there is sufficient occasion for the administration of an emetic, we are not to be diverted from it by imaginary objections. It is sometimes apprehended that vomiting may be injurious in affections of the head and chest, from the apparently violent impression produced by it upon the circulation of the organs in those cavities. This apprehension does not seem well founded. It is rarely, if ever, that any really injurious effects result, so far as the operation itself is concerned. Even where hæmorrhage exists from the lungs or stomach, the spontaneous vomiting which often takes place does not apparently increase the flow of blood, but, on the contrary, seems to arrest it. Pain in the region of the stomach is also sometimes felt to be an objection, but unless there be good evidence of ulceration or of organic disease, there is no reason for it. Even where these exist, a little reflection will show that rupture of the coats of the stomach, the accident apprehended, is not likely to take place. As the stomach only contracts moderately upon its contents, and this contraction is supported by the firm closure of all the muscles about it, its coats are rather sustained and thus prevented from mechanical injury, by the contact of the surrounding parts. In ordinary vomiting,



the stomach itself is almost passive, and the principal activity is in the diaphragm and abdominal muscles, between which it is compressed. Indeed, it has seemed in some cases where vomiting has occurred in hæmatemesis, as if the contraction of the stomach acted to diminish the flow of blood, somewhat in the same way as the contraction of the womb diminishes uterine hæmorrhage.

A state of great weakness constitutes, undoubtedly, a more valid objection, especially where the stomach is irritable, since here severe, disproportioned and long-continued vomiting is liable to occur. When the patient has been reduced suddenly, by causes which have obviously not involved a large expenditure of material, or vital force—as a sudden loss of blood, a sudden shock to mind or body, the immediate influence of some depressing agent acting either on the stomach itself or on the whole system, such as food, a narcotic poison, or a concussion of the brain—vomiting has an exciting and refreshing effect, except when the state of prostration induced is excessive. Where, on the contrary, there has been a gradual and protracted exhaustion of force and material—as from repeated hæmorrhages, a long-continued diarrhœa, extreme abstinence, the very last stages of debilitating diseases—vomiting, though it may sometimes produce a slight rallying for the moment, is attended with great hazard.

The employment of purging, as a remedy, demands a similar consideration. This operation is of a more complicated character than vomiting. This last is comparatively a simple process. Only one organ is primarily acted upon, and its secondary influence on other organs is not difficult to understand. But cathartics act not only upon the stomach—though in a different way—they also act upon the whole succession of organs which make up the alimentary canal, and through them upon others associated with them by function or simple proximity. We are not to consider this canal as a single organ, and purging as the mere evacuation of its contents. It consists of many organs, acting, it is true, to a common purpose—one of great delicacy and importance—yet each contributing to that purpose in a manner as distinct and peculiar as the stomach itself, and each bearing its own relation to whatever is subjected to it, whether food or medicine.

Purgatives have been more extensively employed than any other medicines, both professionally and popularly, and although their use by physicians has much diminished, they are still freely resorted to by the public as the principal remedy for all common ailments. Common opinion regards the health as very closely connected with the state of the bowels. The importance attached to their condition amounts in many almost to a superstition. It may be said, without exaggeration, that there are some chronic invalids, whose hours are, in good part, spent in watching the movements of their digestive organs, and with whom the great event of the day is the

accomplishment of a discharge of a certain quantity and quality. These miserable persons are doubtless exceptions, but in a less degree the same thing is a source of constant anxiety to many others who are really in a state of very comfortable health.

To take care of one's health is one thing; to be constantly watchful of it is another. To take care of one's health is to understand what course of life as to food, clothing, sleep, exercise and exposure is best, and to follow that habitually without thinking of it. To be watchful of one's health is to keep under constant notice all our sensations, the state of all our organs, the mode in which all our functions are performed. He who does this is pretty sure to find that very frequently something goes not exactly to his mind, he attaches undue importance to it, and fancies that it requires a special remedy. The common ailments which are thus discovered, are principally traced to two causes, "being bilious" and "taking cold." The corresponding remedies resorted to are, taking physic and keeping out of the air.

I fear that we are ourselves partly answerable for the evils arising from this source. Pressed as physicians constantly are for a particular explanation of the nature of those indefinite ailments which constitute so large a part of ordinary practice, or of those equally indefinite changes of symptoms that accompany more distinct diseases, it is easy to attribute them to taking cold or to the state of the bile, and this account, ambiguous as it is, is usually satisfactory. Now there is a certain foundation of reality in this explanation. The greater part of the conditions referred to are dependent upon the state of the digestive organs and upon the influence exerted upon the body by that combination of agencies which are collectively meant by the term "the weather," and whose effect, when unfavorable, is popularly expressed by the term "taking cold." There would be no particular harm from the theory were it not for the practices that result from it.

Now besides the erroneous habits with regard to exposure, clothing, exercise and ventilation to which the fear of taking cold has given rise, and of which there will be occasion to speak hereafter, the class of maladies attributed to it, as well as those supposed to depend upon bilious disturbances, are believed to be under the influence of cathartic medicines, and to require them in order to their removal. Hence the supposed necessity for their frequent exhibition. Cathartics are capable of relieving some of the disturbances of the digestive organs in less time than when they are left to themselves. This is especially the case where they are the direct effect of improper or excessive food. The erroneous habits in which so many persons indulge, both as to the quantity and quality of their food, keep them in a state of chronic disquietude from the condition of the digestive organs, even when no definite malady is the result. It requires less effort to be relieved of this by an occasional dose of physic, than by self-denial



and abstinence. A habit of relief by medicine is thus formed, and the evil grows by indulgence, till a permanent state of disorder is at last induced. The resort to purgatives in cases of this description should not be encouraged. The same general remark applies here that has already been made in regard to vomiting. The spontaneous efforts of the system, when fair play is allowed them by a due regulation of all the habits of life, are usually sufficient for relief, and the future condition of the organs is better than where it is obtained by the use of drugs.

Still, cathartics are sometimes necessary, and in order to the successful study of their application, we should keep in view their relation to the organs upon which they act and the influence they are capable of exerting upon the system at large. They are not mere evacuants of the contents of the canal, but are capable of altering the condition, and of both increasing and altering the secretions, of its different parts. Still we possess but an imperfect knowledge of the mode of their operation in these respects. When they act upon the stomach, this is usually indicated by nausea, or at least by a slight qualmish sensation in the gastric region. When their chief effect is upon the small intestines, the indications are less distinct. Situated as these organs are, in the central portion of the great passage, their condition is very much removed from direct observation. It seems to be a fact that causes of irritation which affect those parts of the canal nearest its two outlets, are more apt to produce distinct sensations than when acting upon those in its more remote portions. Any foreign substance or any cause of irritation in the pharynx or œsophagus, is more intolerable than in the stomach; in the stomach, more than in the small intestines. It is again more sensibly felt in the colon, more again in the rectum, and still more at the anus. Thus healthy fæces which are not felt at all while remaining in the colon, are no sooner pushed down into the rectum, than we become sensible of their presence and an effort is excited to discharge them. The sensation created is only relieved by their discharge, or if this be impracticable or resisted, by their withdrawal into the colon.

Hence it is apt to be the case that purgative medicines, after passing from the stomach, are little felt till the product of their action is poured into the large intestines. It happens with regard to them very much as it does with regard to food. Improper food, for example, when present in the stomach produces oppression, wind, acidity and other indications of indigestion. When it has fairly passed into the small intestines, the patient becomes comparatively easy, and if he experiences any sensations, they are of a vague and indefinite character, such as headache, a general uneasiness and restlessness, thirst, feverishness, &c., not particularly referrible to the organs themselves. In the large intestines, unless its digestion has been accomplished in the small intestines, its presence is again indicated by annoyance from flatus, griping and

perhaps diarrhœa. The operation of different cathartics is to be observed in connection with these facts, which, though not universally, will yet generally be found to be true. They correspond to another fact, that the functional disturbances of the small intestines are for the most part indefinite and obscure. Even of the symptoms they produce, all are not to be attributed to local irritation, since the entrance into the blood of the results of digestion may produce some of them through the medium of the circulation—as, for example, the headache, the feverishness, the nervous disquietude of the limbs so often experienced.

It follows from the same cause that the symptoms attending the operation of cathartics, as well as of functional disturbances in the large intestines, are far more distinct and intelligible than of the small. We have here also additional information derived from the inspection of the discharges, though the indication from this source is somewhat obscured by the admixture with them of the products of the small intestines. These, however, it is usually not difficult to distinguish with tolerable certainty from those of the large. Next to the management of the stomach, perhaps quite as much so, the management of the condition of the large intestines is the most important point in the practice of medicine, so far as direct remedial measures are concerned. The comfort and often the welfare of the patient depend very much upon it. In order to this, a correct understanding of their relations, the nature of their functions and the manner in which they are operated on by remedies, is of the utmost consequence.

The large intestines are the recipients of the *residua* of digestion as it has been carried on in the parts above them. They absorb from these *residua* certain materials, and they elaborate the remainder into proper *fæces* and then discharge them from the body. This is sometimes regarded practically as their only office, but it will be probably generally admitted that these organs are also the seat of a special excretion, which gives to the *fæces* their peculiar odor, but which, from the nature of the case, cannot be separately examined. The presence of bile seems to be necessary to this function, and the degree of perfection with which it is exercised is connected with the character of this secretion. Where bile is absent, as in complete jaundice, both the color and peculiar odor are wanting, and this excretion is probably arrested, or at least imperfectly performed. Hence exists a close relation between the functions of the liver and large intestines, and their conditions reciprocally influence each other. The immense variations that are perceived in the color, odor, consistence and other qualities of the discharges, usually attributed to simple variations in the quality of the bile, are with greater reason to be ascribed to the combined influence exercised by the condition of the liver and of the large intestines upon the character of the matters found in the latter organs.



There are circumstances tending to show that there is still another function of the large intestines not always taken into view in practice, though in a general way usually admitted to exist. A considerable quantity of material is undoubtedly absorbed in them, since the alimentary mass is admitted in a liquid state, but becomes nearly solid when it is discharged. It seems, however, to be almost taken for granted that this absorption is merely the straining off of the products of assimilation which have escaped the vigilance of the lacteals of the small intestines, and are of no peculiar quality. It is true that the cœcum is stated to have a peculiar acid secretion, and has been supposed to be the seat of a second digestion, especially in herbivorous animals. I am not aware that the nature of this action, if it exist, has been made the subject of particular observation, but some of the facts in the structure of the large intestines in animals, and still more, many phenomena in disease, give color to the opinion that the relation of the large intestines to the digested mass is not simply residuary, as it were, but that they are assimilating organs of no inconsiderable importance.

In short, there has seemed to me reason to believe that portions of the aliment, after undergoing certain changes in the preceding organs, are transmitted into the large intestines not accidentally, as it were, but intentionally, for the purpose of undergoing there another and a higher elaboration, and that the most highly animalized results of assimilation are the results of this last process; that the food is here raised to its highest vital condition; and that those elements of the blood which constitute its most vital parts, here receive their last finish. This is conformable to the analogy of what takes place elsewhere in the economy, where, as a general rule, the secretions that depart the most from the character of the blood go through the longest process, and are prepared by the most complicated apparatus. This view is supported by a reference to the importance attached to the structure and capacity of these organs in animals whose food is farthest removed in character from the blood and tissues that are to be formed from it, such as the ruminants and other herbivorous quadrupeds.

In diseases there are some facts, the indication of which is in the same direction. Affections of the large intestines which interfere with their functions, such as chronic ulcerations and chronic diarrhœa, are often characterized by a peculiar paleness—not the ordinary paleness of exhausting disease, dependent upon an insufficient quantity of blood—but a paleness indicative of blood deficient in its red particles. On the other hand, many, I think most cases of true anæmia, are accompanied by some indication of failure in the office of these organs, very often by diarrhœa.

But whatever importance may be attached to these considerations, it is incontestable that the condition of the organs in question has a great influence over the phenomena and course of dis-

ease, and sometimes also upon its result; and that a strict attention to their management, is, as already stated, of the utmost consequence in the treatment of disease.

## Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

APRIL 22d.—*Specimens presented to the Society by Dr. George W. Otis, Jr., of Springfield.* Dr. JACKSON exhibited them, and gave a full history of the individual cases which Dr. O. had prepared, and of which the following is a condensation. Seven of the specimens were in spirit, and put up by Dr. O. in very handsome anatomical jars.

I.—*Ovarian Dropsy, followed by Pregnancy; fatal.* A lady, aged 27, and usually perfectly healthy, was married at 16, had her first child a year afterwards, and subsequently a miscarriage. In April, 1854, the abdomen began to enlarge, and uniformly, as she was sure. Five months from this time the catamenia stopped, and she had the usual symptoms of pregnancy. In January, 1855, as the enlargement was excessive, and the fœtal motions were not felt, she saw her physician, Dr. Nathan Adams, who at once recognized an extensive dropsical accumulation; and on the same day she was seen, in consultation, by Dr. Otis. From the absence of all disorder of the general functions, the normal character of the urine, &c., encysted dropsy was diagnosed. The following week, in view of the probable existence of pregnancy of five months, and of the daily increasing discomfort of the patient, paracentesis was performed, and twenty-two quarts of serum were drawn off, the latter portion being very thick and turbid. No immediate bad symptoms ensued, but the patient, who had hitherto preserved her plumpness and fresh color, soon appeared haggard and pale. The cyst rapidly refilled, and the patient's health as rapidly declined. February 12th, a second operation was imperative; and eight days afterwards she was delivered of a six months fœtus that lived an hour or more. Sharp abdominal pains, with other symptoms of peritonitis, came on, and she died on the 22d. On examination, a large unilocular ovarian cyst was found, in the upper part of which was a rent, which Dr. O. supposed to have occurred at the time of labor, and to have caused the extensive peritonitis that existed.

II.—*Rupture of the Uterus.* Patient healthy; aged 22 years; first labor, May 11th, 1857. An irregular practitioner sent for, as her own physician could not be had; child born. The man passed his hand into the womb, and, as the husband said, manipulated for an hour and a half, the woman shrieking and tossing with pain; his object being to remove the placenta, as there was uterine hæmorrhage. On the two following days the hæmorrhage continued, and was considerable in amount. May 13th, Dr. C. Bell, the family physician, saw her, and found evidence of violent peritonitis; discharge from vagina fœtid; tenderness about vulva exquisite. May 19th, Dr. O. saw the patient in a hopeless condition; and at 9, P.M., she died.

Examined, thirteen hours after death, by Dr. O. Large amount of fœtid gas escaped from cavity of abdomen. Extensive peritoneal in-



inflammation, with copious sero-purulent effusion. The agglutinated viscera formed a wall about the uterus; and in the cavity thus formed were several clots of blood. Laceration, one inch and a half long, near the right Fallopian tube; edges gangrenous; parietes of organ otherwise healthy. As the vagina was divided, the placenta slipped from the patulous os uteri.

III.—*Old Fibrinous Clots in the Heart.* A negro lad, aged 10 years. December 4th, 1852, excessive dyspnoea; pulse small and irregular; cough and expectoration slight. Extended dulness over heart, with increased impulse, and a rumbling and very obscure sound. He died the same day. Organ hypertrophied; several fibrinous coagula in right cavities, and the same in each ventricle, of tough consistence; opaque, and apparently coalescing with the endocardium. Dr. O. supposed that these clots had formed at a somewhat distant period before death.

This case has been already published in full, and with remarks, in the *Virginia Medical Gazette* for February, 1853.

IV.—*Fœtus expelled, with the membranes unbroken, during convalescence from a severe attack of Typhoid Fever.*—A healthy woman, aged 35 years; morning sickness the second week of July, 1860. Nov. 1st, symptoms of fever began, and on the tenth of December she aborted.

V.—*Melanotic growth from the anterior surface of the Eye.*—Oct. 17th, 1854, saw Mr. ———, with a frightful cancerous-looking mass protruding from his left eye. Two years previously it appeared as a black speck at the upper and outer segment of the cornea, and at its junction with the sclerotica; and it was the seat of a smart, lancinating pain. Gradually a pimple formed, which soon enlarged rapidly, and became livid. Various caustic quack-applications were made, and the mass was thrice excised; but it returned each time before the wound was healed, and the caustics seemed only to hasten its growth. The cervical glands were much enlarged; and the man had a cancerous aspect. Morbid growth attached by a broad base over greater part of cornea and an equal area of sclerotica. Vision not lost until the last four months; previously could see, when the pendulous fungus was held aside. Organ removed; wound healed. The patient was heard from a year afterwards, and the disease had not returned. The mass was rather more than double the size of the eye-ball, of a dark-purple color, and exceedingly vascular; a large part of it was removed for examination, but the remainder presents the usual appearances of melanosis.

Since the above, Dr. O. has removed a somewhat similar tumor, without sacrificing the globe of the eye. It had almost a pediculated attachment to the conjunctiva near the margin of the cornea, and was so large as to conceal the eye.

VI.—*Cancer of the Breast; successful Operation.*—June 1st, 1855, Mrs. P., aged 63, consulted Dr. O. Tumor in left breast of the size of the fist, and appeared three years previously as a small lump. Seemed imbedded in the gland; hard and heavy; surface expanded into a liver-colored fungus, that bled when it was touched, and discharged an ichorous pus most profusely; nipple not retracted. Axillary glands not swollen. Aspect of patient cachectic; hectic fever, anorexia, and excruciating pain in tumor, with sleepless nights. Operation advised as a palliative measure. The patient had had various

empirical and exceedingly painful applications made to the breast; and after the above date, about three-fourths of the mass was destroyed by an arsenical paste, but new growths sprang forth almost immediately.

June 16th, the whole breast was very thoroughly removed. No disease towards axilla; and the wound healed well. Of five intelligent physicians who were present at the operation, no one had a doubt as to the cancerous nature of the disease. No microscopic examination was made; but the tumor had the "*cri sous le scalpel*," and the "juice."

After the operation the woman gained flesh and strength, and was able to work laboriously. Three years and a half subsequently she died from pneumonia, and had enjoyed excellent health until within a few days before her death. There was no autopsy; but the attendants observed no indication of a return of her disease.

VII.—*Disease of the Testicle*.—An Englishman, aged 29 years, contracted chancre eight years ago, when he was serving in the London police. Is still a powerful man, though much less so than formerly, when he was considered the athlete of his brigade. Married two years; no children; wife has never shown any sign of contamination.

Testicles began to swell three years ago—right, especially; and this alone was painful. Great pain in night for two years. Six months ago an abscess opened spontaneously on the outer portion of the right testicle, and a foul sore has existed there ever since. Active treatment was used last summer, but without effect; the ulceration increased; there was a constant foetid discharge; masses from time to time sloughed off that seemed to consist of seminiferous tubercles, immersed in fibrinous exudation; and the patient's condition having become intolerable, the organ was removed Dec. 17th, 1860. Its weight was 13 oz.; cellular tissue of scrotum healthy; cremaster muscle greatly hypertrophied. Some secondary hæmorrhage, but the wound healed well. The morbid appearances in the diseased testicle were regarded by Dr. O. as similar to those usually found in ordinary chronic orchitis; and he thought the case interesting for the rarity of suppuration in connection with syphilitic sarcocele.

The left testicle is three times the usual size, uniform and hard, but quite free from pain. The sexual appetite continues.

VIII.—*Superficial Caries of the lower back part of the Femur, the result of a Diffused Aneurism*.—In January, 1855, a negro boy, aged 18 years, whilst poising a heavy weight, felt a sharp pain in the ham, and the part gradually swelled. Six weeks afterwards the limb was enormously swollen, measuring thirty inches in circumference at the knee, and over the inner margin of the patella, being distended almost to bursting by the subjacent coagula. Gangrene at last seemed imminent; the thigh was brawny, tense and cold; the leg was mottled and cold; and there was no pulsation. Two months after the accident, amputation was performed at the upper third of the thigh. On an examination of the limb, the artery, after perforating the adductor magnus, was lost in a vast sac, containing several quarts of coagula, and through which the circulation had apparently been arrested for some time; the sac being bounded by the deep fascia and the expanded vasti muscles. The tibial and peroneal arteries were contracted at their upper portion, but lower down were of full size and healthy in structure. There was no secondary hæmorrhage, but



the wound was unhealthy, and, after lingering for some weeks, the patient died.

IX.—*Inflammation about the Ankle-joint*.—A boy, aged 17, of strumous temperament. Dec. 7th, 1854, he felt a pain above the left inner malleolus; and at that time he was walking several miles to school daily, and through a deep snow. On the 14th an abscess had formed, with intense pain: and by a superficial incision a pint of pus was discharged. Jan. 22d, Dr. O. found the joint distended, and very painful; bone being felt in every direction through a fistulous orifice. Leg amputated Jan. 30th. The boy did well; and is now, with the aid of a Palmer's leg, active as any one.

X.—*Urethral Calculus*.—An Irishman, aged 45, had had pain in the region of the left kidney two years previously; hæmaturia and other urinary symptoms occasionally since. Retention of urine three weeks before Dr. O. saw him; overcome by pushing back a foreign body with a bodkin. A phymosis that existed was operated upon, and then the meatus and urethra were divided to the extent of three fourths of an inch. Calculus readily grasped by forceps, but could not be removed, though very considerable force was used, until it had been broken by Civiale's urethral lithotrite. The incision healed well, and the patient rapidly recovered. Dr. O. having examined the calculus chemically, found it to consist mainly of the oxalate of lime; and this result is confirmed by Dr. John Bacon's examination; the other constituents being a very little uric acid and phosphate of lime. The fragment, as now seen, is about the size of a large pea.

The thanks of the Society were presented to Dr. Otis for the above collection, and for the very satisfactory history that he had sent with the specimens.

MAY 27th.—*Enormous Tumor of the Abdomen*. Dr. GEO. C. LILCOLN, of South Malden, showed a cast of the tumor, and related the following history of the case. The patient was a man, 25 years old, whose occupation for the last eight years had been that of a seaman in the merchant service, rather slightly built, weighing ordinarily 150 pounds. He had always enjoyed good health until the appearance of the tumor. In November, 1859, while in New Orleans he first became aware, by accident, of some enlargement of the abdomen. He continued his usual work, and arrived home about Christmas, 1859. For the next two months he was able to go about, but experienced considerable inconvenience from his increased bulk. In March, 1860, he entered the Massachusetts General Hospital, where he remained but a short time. At that time the abdomen was enormously swollen, tense and inelastic, feeling like stiff leather, with imperfect fluctuation, and very slight tenderness at points. There were no constitutional symptoms. March 30th, his girth at four inches above the umbilicus measured 41½ inches; at umbilicus, 39½ inches. During the month of June, there was a great increase of general anasarca. The scrotum and penis were extremely œdematous. This was greatly relieved by scarifications. August 25, the abdomen was tapped; no water flowed from the canula, but it oozed rapidly from the wound during ten days, when the wound closed, and another was made with a lancet, with the same effect. The œdema gradually subsided spontaneously. April 1st, 1861, the abdomen was very large, smooth and symmetrical, and measured 52 inches in circumference. A dense mass was felt, filling the left hypochondrium. May 12th, he was seized with gene-

ral convulsions, but without loss of consciousness, lasting two hours, and followed by great prostration; these recurred several times until his death, May 14th.

At the autopsy, the peritoneum was quite healthy; its cavity contained a little serum. The diaphragm was pushed up to the fourth rib. The arch of the colon lay above the growth, and was firmly attached to it. The ascending portion and all the small intestine lay on the right of and beneath the mass in the right lumbar region. The right kidney was normal. The left was not found, but a brownish mass, which lay beneath the tumor on the right side of the spine, was undoubtedly the kidney entirely disorganized. From the position and general appearance of the growth, it undoubtedly arose in the sub-serous cellular tissue between the kidney and the descending colon. The whole of the left side of the abdomen was quite filled with the tumor, and the extent of the attachments was equal to one third of the mass, and there were no adhesions below the left hypochondrium.

Dr. ELLIS remarked that the tumor, after removal from the body, assumed a more flattened form than while within the abdominal parietes, the long diameter being about two feet, the short eight inches. Weight, eighty pounds. It was composed of many lobes, some of them being quite large. Portions of the surface were quite vascular, but the prevailing color was white or yellowish-white, with some decidedly yellow portions. The consistence of the lobules varied very much, some being very firm and others so soft that they fluctuated. Two irregular masses of bone were also seen, one perhaps half an inch in thickness. The other, much larger, occupied a portion of a dense fibrous lobe between two and three inches in diameter, and, on microscopic examination, was found to contain laminæ and true bone-corpuscles. It had the appearance of being the result of a transformation of the fibrous tissue in which it lay.

The structure of the different lobes varied as much as their consistence, some having the aspect of ordinary fibroid tumors, while a large part had the appearance of adipose growths, which contain a large amount of fibrous material. The fat in some parts was of a whitish color, but contained, like the yellow portions, the usual adipose cells. The soft fluctuating lobes were composed of loose, delicate, white, moist fibrous tissue.

In the centre of one of the largest lobes was an irregular cavity surrounded by brownish tissue, which was evidently softening.

With the exception of the peculiarities mentioned, the microscopic character of the growth was fibrous.

Dr. JACKSON said that the patient was under his care for a few weeks at the Hospital. The sense of fluctuation of the abdomen was so perfect that he had no doubt of the existence of ascites. The tumors, for there seemed to be several, were quite distinct; and he supposed that it was a case of carcinomatous development in the sub-peritoneal cellular tissue, and which he had generally found to be attended with ascites; the healthy condition of the patient corresponding with the fact, so far as he had observed, that in these cases the organs are not implicated in the disease. He now believes that the feeling of fluctuation was due to the fatty structure of the tumor, and not to the presence of fluid.

In regard to the anatomical character of the tumor, Dr. J. thought that it might be the same as that of the "mammoth tumor" described



by Prof. Delamater, in the *Cleveland Medical Gazette* for August, 1859. In that case, the tumor weighed 275 lbs., and the patient less than 100 lbs. at the time of her death; being the largest tumor on record, so far as Dr. J. was aware. A daguerreotype of the patient, from the Society's Cabinet, was shown; and extracts were read from Prof. D.'s report of the case. In one respect it strikingly resembled Dr. Lincoln's case; and that was, in the very marked sense of fluctuation that induced the attending physician to puncture the mass more than once.

JUNE 10th.—*Chemical Analysis of three Calculi from the Kidney of an Ox.*—(No. 1,048 of the Society's Cabinet.) Reported by Dr. BACON.

The largest has the size and shape of an apple-seed, and is made up of several concentric layers of a pink color, surrounding a white nucleus. The other two are much smaller, and also show pink concentric layers. All are whitish on the exterior. One half of each was used for analysis. They are composed of carbonate of lime and carbonate of magnesia, with phosphate of lime, phosphate of magnesia and animal matter. A little oxalate of lime is also found in the largest one. The amount available for analysis was not sufficient to determine whether iron occurs in the pink coloring matter or not.

## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JULY 4, 1861.

MUCH effort seems to have been recently expended in attributing the appearance of the epidemic which is said to have broken out at Fort Monroe to the neglect of vaccination in the Massachusetts regiments. In a late number of the *New York Medical Times* an extract appears, copied from a Rhode Island journal, and taken from one of the daily Boston newspapers, in which a statement is made that insufficient attention was given to this matter by the authorities here, and also that a liberal offer by a Roxbury physician to vaccinate the soldiers free of expense, was declined, the whole charge implying that our medical authorities have been neglectful of their duties. Now, to tell the truth, it seems to us as if somebody had succeeded in creating a good deal of blaze and smoke out of very little straw. We certainly think, so far as we are acquainted with the facts, that Massachusetts has, on the whole, acquitted herself from the outset of the war with quite as much credit as any one of her sister States, not even excepting Rhode Island, which we are glad to learn improved the time so well before the departure of her troops. The first five Massachusetts regiments, it must be remembered, left at a moment's warning, to aid in the defence of the National Capital, then supposed to be in imminent danger, the more urgent necessities of the occasion not allowing time for that inspection which those underwent who proceeded more leisurely to the field of action. When the critical exigency had passed, and recruiting commenced for a long campaign, strict orders were given by the Adjutant General to the surgeons detailed to examine recruits, to reject all who did not present satisfactory evidence of having been vaccinated, which orders, we have no

reason to doubt, were promptly and faithfully executed; every possible means was taken to render our soldiers efficient for active service, and we have little doubt that they compare favorably at this moment with any in the field.

With regard to the liberal offer of Dr. Martin, it should be stated that it was not made until after five regiments had reached the seat of war. Our medical organization had now become complete, and it might have been regarded in the light of a discourtesy to appoint a special medical officer over the heads of those already entrusted with the health of the troops.

We would remark, in conclusion, that a full report of the number of cases of smallpox and varioloid that have occurred at Fortress Monroe, and the attendant fatality, would be a valuable item of medical intelligence, and we were somewhat surprised that our correspondent of this week does not allude to the subject in his interesting communication.

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**MEDICAL MATTERS AT FORTRESS MONROE.**—The following letter from Fortress Munroe treats of matters of so much importance at the present time, that our readers will regret as little as we do its substitution for anything from the Editorial pen this week.

MESSRS. EDITORS,—Although not at this place in the capacity of regimental surgeon, or in any other way connected with the “regular” or irregular medical staff of the army, I am still here under an order from Maj. Gen. Butler, for a special duty, the fulfilment of which makes it proper that I should have my quarters at the General Hospital attached to Gen. Butler’s command, and being thus situated enjoy opportunities of seeing those cases which distinguish army surgery from all other, to a degree not enjoyed by any of the regimental surgeons, or indeed any other at this post except those on duty at the hospital. These latter are too entirely occupied by their continual and arduous duties to spare one moment for any other purpose, and therefore I, having just now a little leisure, and believing that an interest cannot fail to be felt in all which transpires at this point, propose to say a few words, first of the hospital, and then of the cases which have here fallen under my notice.

In the first place, what is the General Hospital at Fortress Monroe? It is an institution organized by order of Gen. Butler, for the purpose of affording the best possible (under the circumstances) surgical and medical aid to the large body of troops under his command. To take charge of such an hospital, first at Annapolis and afterwards at this place, a gentleman was summoned, whose reputation as a surgeon is widely extended, and who in one department of surgery has gained a character for skill in diagnosis and operation, with success in results, not confined even to this continent, and hardly second to that of any surgeon living. I allude to Dr. Gilman Kimball, of Lowell, Mass. The propriety of Gen. Butler’s selection can hardly be doubted by any one who knows that, in addition to this, Dr. Kimball has had charge, for twenty years, of a large hospital at Lowell, particularly devoted to the treatment of surgical injuries from machinery, &c., occurring in the numerous factories at that place. For assistants, there are at present two—Dr. Harwood, of Mass., and Mr. Francis, of Lowell, the latter an intelligent and indefatigable young gentleman, who has had the advantage of having been for two years past an assistant to Dr. Davis at the Marine Hospital at Chelsea, Mass. Besides these, there are twelve nurses, nine of whom were selected by Dr. Kimball, and the remaining three sent by Miss Dix. They are all that can be desired; and though it is understood that most “regular” surgeons of the army prefer male nurses, others, both in Europe and this country, as competent to judge and perhaps fully *as* unprejudiced, think otherwise, and claim great benefits as arising from the influence of such female attendants on sick and wounded soldiers. One of these nurses, Mrs. Sawyer, has had charge of the nurses at the hospital at Lowell, has charge of those here, and



is in every way perfectly adapted for her position. There are, besides, many intelligent and useful male attendants detailed for this duty from the various regiments, and any number more can be obtained when absolutely required by the exigencies of this particular service.

The pharmaceutical department, although not yet complete, will soon, it is hoped, be so, having a competent apothecary and assistants, and requiring only a proper supply of medicines and apparatus, which, it is expected, will soon be supplied. The entire establishment is under the general control, *ex officio*, of Dr. Cuyler, the regular senior army surgeon at this post. Dr. Kimball acts under a special contract with the Surgeon-General at Washington. It seems a great pity that, in the present peculiar crisis of affairs, it is not in the power of the Surgeon-General to offer such men anything like adequate remuneration. According to the regulations of the service, one hundred dollars a month, *without* rations or allowances of any sort, is all which the Surgeon-General is strictly entitled to allow in making a special contract for the services of a private practitioner. The army needs a great many men now to take charge of the very numerous stationary hospitals which must be organized, if the present war continues. Who are to take charge of these Hospitals? There is the regular medical staff of the army, a large number of the members of which, including many of the ablest, have resigned, leaving but a small remnant. Some of these gentlemen have undoubtedly had considerable experience, very few anything that would compare for variety and extent with that of civil surgeons of twenty years standing in active practice, while the majority have kept up their professional knowledge for the most part at remote frontier posts, where a book is indeed a *rara avis*, and where practice is limited to a few cases annually of scurvy, frostbite, delirium tremens and intermittent fever.\* It has been the habit to speak of the medical staff of the army as an organization which cannot be improved, and of its members as having reached somehow a point of acquirement to which civilians may hardly hope to approximate. This style of eulogy has generally emanated from people who knew very little about what they were speaking. The praise may be just, or it may not. It is possible that it may have been part of a pompous and inflated style which seems inseparable from the subject. Time will show. But even if every member of the medical staff, old and young, possessed the ability and experience of a Paré, Larrey, Bell or Armand, there are not nearly enough of them for the service required. The only legitimate source ("regular") to which we can look, besides the present medical staff, will consist of such additions to the staff as may result from the examinations now being held, and which additions undoubtedly may be made to any required extent. Let it be remembered, that to enter the medical service of the country in this, the only legitimate way, candidates **MUST BE UNDER THIRTY YEARS OF AGE**. With the fullest and warmest admiration for the ability, energy and acquirement of the rising generation of medical men, I would ask whether it is very common to find, under thirty, men who possess the self-reliance, coolness, facility, contrivance and acquirement which are to such a great degree the result of long-continued and many-sided experience. It may be said that there are many old and experienced surgeons in the regiments. So there are, and many who do not deserve very high *encomia*, as will soon be made very painfully evident; but their duties are with their regiments in camp or on the march and field of battle, not in the stationary hospitals. A very superficial glance at any work on the history of army surgery will show the woeful fallacy of trusting to the regimental staffs alone for the entire medical charge of an army. The very best men would be such as our country swarms with—such men as Parker, Warren, Watson, Bigelow, Crosby, Cabot, and perhaps a hundred more, whose surgical ability is beyond doubt, cavil or surmise, and who are probably considerably on the shady side of thirty. This is just the class of men who cannot, under existing laws and regulations, give their invaluable services to their country, without submitting to great pecuniary loss, to an-

\* A gentleman of the staff, a fellow-student of mine, one who at the time of his appointment (some fifteen years since) was considered one of the most promising appointments ever made to the medical staff, and who has since made that promise true, told me, after some ten years service, that with the exception of some dozen cases of frostbite, fracture and fever, he had not seen "anything in practice which an old woman could not have taken charge of as well as anybody else."

noyance, and the miseries of a false position. Dr. Kimball has endured all these, and, as I believe, has felt an ample and full reward for all in the goodness of his own heart, and the consciousness that he has thus been allowed to assuage such anguish which would otherwise have been endured, and to merit in many ways, which they will yet, IN SPITE OF RED TAPE, discover and appreciate, the thanks and blessings of his countrymen. It is hardly to be expected that many will be so disinterested. The country has no right to expect it, and should at once see that the way is opened to such men to enter the service of their country without too severe pecuniary sacrifice, but with proper remuneration and in the enjoyment of a recognized and honorable position.

In my next, I will give you an account of the cases in the hospital, and particularly of the gun-shot injuries, of which there are many interesting cases already, among the over 125 patients on the sick list. M.

**MEDICAL BENEVOLENT ASSOCIATIONS.**—The *Philadelphia Medical and Surgical Reporter*, in answer to a correspondent, mentions the organization and subsequent failure of a medical benevolent society in that city some years since, and says "we know of no such institution in the country at the present time." We would respectfully call the attention of our brother journalists to the fact that the Massachusetts Medical Benevolent Society has been in existence several years, and is at present in a flourishing condition, having a long roll of members and a rapidly-increasing fund.

WE are requested by Dr. W. E. Coale, Librarian of the Massachusetts Medical Society, to state that the Society will pay the postage of Braithwaite and its own annual publications; but that the books embraced in the Library of Practical Medicine will only be sent to members by mail on the receipt of the postage, or by express, on application at the office of this JOURNAL. It is understood that they will be sent only to those who have paid all their dues.

#### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, June 29th, 1861.

##### DEATHS.

	Males.	Females	Total
Deaths during the week, . . . . .	31	24	55
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	34.4	28.6	63.0
Average corrected to increased population, . . . . .	..	..	70.3
Deaths of persons above 90, . . . . .	..	..	..

##### Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
3	2	2	2	4	0	0	1	0

##### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	29.888	Highest point of Thermometer, . . . . .	85°
Highest point of Barometer, . . . . .	30.104	Lowest point of Thermometer, . . . . .	48-50
Lowest point of Barometer, . . . . .	29.694	General direction of Wind, . . . . .	S.W.
Mean Temperature, . . . . .	69°.9	Am't of Rain (in inches) . . . . .	0.06

**COMMUNICATIONS RECEIVED.**—Review of *Materia Medica*. Read before the Maine Medical Association. —Researches upon the Nature and Treatment of Asthma.

**BOOKS AND PAMPHLETS RECEIVED.**—Address before the Connecticut Medical Society, by Ashbell Woodward, M.D.—Medical Communications, with the Proceedings of the Connecticut Medical Society at its last Annual Meeting.

**DIED.**—In Belfast, Me., June 21st, Dr. Hollis Monroe, aged 71 years.

**DEATHS IN BOSTON** for the week ending Saturday noon, June 29th, 55. Males, 31—Females, 24.—Accidents, 5—anemia, 1—imperforate anus, 1—apoplexy, 1—inflammation of the bowels, 1—congestion of the brain, 1—cancer (of the uterus), 1—cholera infantum, 2—consumption, 3—convulsions, 2—croup, 2—dropsy of the brain, 2—drowned, 3—epilepsy, 3—erysipelas, 1—scarlet fever, 2—typhoid fever, 1—hæmorrhage, 1—lissence of the heart, 1—strangulated hernia, 1—infantile diseases, 3—disease of the kidneys, 1—inflammation of the lungs, 4—marasmus, 3—measles, 1—old age, 2—paralysis, 1—caries of spine, 1—tabes mesenterica, 1—unknown, 4.

Under 5 years of age, 23—between 5 and 20 years, 7—between 20 and 40 years, 11—between 40 and 60 years, 6—above 60 years, 8. Born in the United States, 38—Ireland, 12—other places, 5.



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VESICO-VAGINAL FISTULA—SPONTANEOUS RELIEF.  
"THE AMERICAN OPERATION."

[Read before the Obstetrical Society of Boston, July 6th, 1861, and communicated for the Boston Medical and Surgical Journal.]

BY B. E. COTTING, M.D., CORRESPONDING SECRETARY.

VESICO-VAGINAL fistula has been justly called a lamentable accident. Its consequences are truly deplorable; the remedy difficult, and, until recently, very uncertain. Spontaneous recovery, a result hardly to be hoped for, is a mere possibility. As an instance of such unexpected good fortune, the following case seems worthy of record.

In January, 1844, the patient, aged 33 years, was delivered of a first child, after a labor of five days without intermission. On the third day her medical attendant left her, because she would not allow the forceps to be used. After he left, she got no attendance until the last moment of her labor, when she had the assistance of a midwife. During the five days she was not conscious of having passed any urine. Before the removal of the placenta, the water was drawn, and the catheter was used at proper intervals afterwards. On the third day after delivery, however, she found that she had no control over the bladder. After this, all the urine came away involuntarily and without cessation.

Having been called at this stage of the case, I found a sloughy opening from the vagina into the bladder, nearly an inch above the neck of the latter, large enough to admit the tips of two fingers. The catheter passed readily from the bladder into the vagina. The nature of the case, thus clearly made out, was explained to the patient; and she was informed that, after her recovery from confinement, means for permanent relief might be tried with reasonable chances of success. From time to time thorough explorations were made; and the case on the whole was considered a promising one for a surgical operation.

This was in 1844, and I was led to take this view of the mat-

ter, because I had been either an observer or an assistant at most of the operations for this accident performed previously, or about that time, by Dr. George Hayward, Sen., of Boston. But the patient resolutely refused to submit to any operation, in spite of earnest and repeated persuasion, and at length declined all further interference; having, from the first, allowed examinations very reluctantly. All unusual interest in the case therefore subsided; and for a long time after, nothing was heard of the patient, except that she was in a wretched condition.

Seventeen years having passed, I accidentally, a few days ago, met with this patient, and obtained from her some particulars of her history subsequent to her misfortune.

She had never been pregnant since, though she says that she knows of no reason why she should not have had other children. For three years or thereabouts, after the accident, she was unable to retain the least accumulation of urine, the dribbling having been constant and unceasing. In a word, she suffered all the discomforts and loathsomeness ordinarily attendant upon such accidents. She afterwards began to experience some slight power of retention, and this continued to increase, very gradually, until she had almost or quite acquired complete control over her urine. For the last three or four years, and since her catamenia have ceased, she has been able to retain and pass her water, as she says, "as well as anybody." She goes to church and other public places without apprehension, though after several hours she sometimes feels uneasy and fears consequences. She has not, however, suffered from too long retention up to this time. She affirms that she is completely restored, and perfectly well.

On partial digital examination, which she very reluctantly permitted, there were noticeable deep corrugations and contraction about the place of the former opening; and the upper part of the septum appeared to overlap the under. No communication with the bladder could be discovered by the finger; but whether it was completely obliterated, or, if any, how large the opening might be, could not be ascertained with absolute certainty, as she repelled the introduction of the catheter—seizing the instrument and preventing further exploration. At any rate, the injury has been completely repaired, and the patient relieved of her miserable state and restored to a comfortable existence.

In looking up and reviewing a case like the foregoing, which terminated so fortunately, one is naturally led to reflect on the great difficulties formerly attendant on efforts to remedy such accidents, and to call to mind some of the circumstances of the earlier operations performed by Dr. Hayward, particularly those original and scientific devices of his, which have rendered subsequent operations so much more successful; and which, having been accepted by such men as Prof. Verneuil and M. Robert, of Hotel Dieu, have given to the method abroad the name of "The American Operation."



An account of some of these improvements is worth repeating—for their own intrinsic value, and more especially now as they do not seem to be fully appreciated or properly acknowledged by some, whose success, whatever it may be, should be attributed to the more or less complete adoption of these improvements; and moreover as, in certain localities, they appear to be in danger of being overlaid by accumulating heaps of pretended discoveries and inflated assumptions.

Bearing in mind that when the first case presented itself to Dr. Hayward, in 1839, there had not been a successful operation in this country, and very few anywhere; that little or no assistance in the details of such an operation could be obtained from any source; that troublesome and alarming symptoms had arisen from sutures carried through the walls of the bladder, as previously thought necessary; that danger and even death had occurred from hæmorrhage—bearing in mind these and other formidable obstacles on the one hand, and the confessedly slight chance of success on the other, we shall have a better conception of the great service Dr. Hayward rendered, in planning and executing, on strictly scientific principles, a *new, safe and successful* method of operating for the relief of this accident.

And first, by passing a large, smooth and inflexible staff through the urethra beyond the fissure towards the fundus of the bladder, and using this staff as a lever, the pubes being the fulcrum, he showed that the bladder could be brought forward until the fistulous opening came quite within reach and sight. This movement originated with Dr. Hayward. It can be effected without difficulty; and, even before the use of ether as an anæsthetic, caused no very considerable amount of inconvenience or pain. Now, of course, whenever ether is resorted to, the last and only objection is entirely obviated.

The parts having thus been rendered accessible, Dr. Hayward's next and chief improvement consisted in superficially but thoroughly paring the edges of the fistula without cutting deeply into the walls of the bladder, and more particularly in dissecting or splitting up the vaginal membrane around the opening for the distance of a few lines, in order to have broader surfaces to be placed in contact; thereby increasing the chances of adhesion, while the danger of hæmorrhage, the result of deeper incisions, was greatly diminished. In fact, the bleeding was in this way reduced to the merest trifle, and the loss of substance, always to be avoided, rendered so inconsiderable that it need not be taken into account.

A third and very great improvement, introduced by Dr. Hayward, was the passing of small sutures; and these through only a portion of the thickness of the pared parts—not through the walls of the bladder. Thus, inflammation of this organ, as experienced by previous operators, was completely averted.

In his first cases, Dr. Hayward removed the stitches a few days

after the operations; but having in one instance, at least, which I happened distinctly to witness, re-opened an already united wound by pressing too suddenly on the staff in his endeavor to get at the most distant suture, he allowed in some of his subsequent operations the threads to remain until spontaneously cast off. Left in this way, the threads caused no trouble whatever, usually coming away in from seven to ten days. In one instance one remained twenty-eight days without inconvenience or injurious effect—so that this course may be adopted whenever it may be difficult to reach or to remove the stitch.

As so much has been said, from time to time, since the publication\* of Dr. Hayward's method and success—now on the varied contrivances for securing and retaining the sutures, again on their number and size, and still more on their material, till "lo! a new era dawns"! and we have "the great surgical achievement," "the imperishable discovery" of the silver suture (though unfortunately for our country's vaunted glory in the matter, this "result of a Providential train of circumstances" occurred fifteen years after silver sutures had been in use in England, been advocated there on precisely the same grounds, and even been employed in a successful operation for vesico-vaginal fistula, as reported in vol. xxx. of the London *Lancet*); and as there is no little danger in all this clamor about clamps, buttons, shot, and other equally unimportant mechanical contrivances, that the true scientific principles, which should guide in these operations, may be overlooked or disregarded—it may be well to remark in a word, and it needs but a word, that, wherever union by the first intention is looked for, the edges of the wound must be kept in close contact; and that, if this be skilfully done, it is of far less consequence by what peculiar contrivance it is effected. If sutures are used, more depends upon their proper adjustment, and their having the exact amount of tightening requisite, than upon the material. A metallic suture, of whatsoever or whomsoever's make, if imperfectly secured or too tightly tied, will prove as ineffectual or will cut its way out as certainly as that made of silk or flax. A delicate thread, even of cotton, properly adjusted, will retain its place, cause as little irritation, and leave as small a scar, as we have often had occasion to notice in operations about the face, as the purest silver, the softest iron, or the most polished steel. Let each operator, then, use whichever suture, knot, or fastener he himself chooses or can, in a given case, best manage, just as he would select any particular form of scissors or knife for paring the opening; but let him not forget the principles on which he must depend for success. The former, though perhaps not the best, may answer if adroitly used, but a neglect of the latter will result in inevitable failure. And having, by such a course, been successful, let him not, in his report

\* American Journal of the Medical Sciences, Philadelphia, July, 1839, vol. xxiv., p. 253. Boston Medical and Surgical Journal, April 16th, 1851, vol. xlv., p. 209.



of the case, as is too often done, wholly ignore the first demonstrator of these principles—an act of simple justice; while magnanimity would suggest an honorable mention.

The position of the patient during the operation is of some consequence, though it may occasionally be varied to suit the convenience, or even the whim, of the operator. Dr. Hayward adopted that of lithotomy, which has many advantages. The fistulous opening, naturally thrown forward by this position, can thus without difficulty be brought by the staff nearly or quite to the os externum, and the subsequent steps of the operation thereby greatly facilitated. In this way too, an assistant, on either side, can with one hand keep the leg in proper position, and with the other separate the labia with a suitable spatula, without being in the way of the operator, who stands in front of the patient. Besides, the patient is in the most comfortable posture for a prolonged operation, and can thus take ether when and as long as desirable.

The catheter for after use, contrived by Dr. Hayward, is, to say the least, quite as good as any of its imitations; while its advantages are the plate which enables it to be secured by a bandage, and the screw which allows the additional portion to be turned in any desired direction, or to be removed at pleasure.

Much more might be added, but enough has been said for the present purpose, which is, simply, a short exposition of the principal improvements, based on which, the operation for vesico-vaginal fistula is hereafter to become one of the successful operations of surgery. Having had the opportunity to be present and to assist in the earlier cases, I can bear testimony to the difficulties encountered, and to the original as well as successful means adopted to surmount them—a grateful testimony to the merited eminence of a faithful instructor and steadfast friend.

*Roxbury, July, 1861.*

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REMOVAL OF OVER FIVE INCHES OF THE LOWER END OF THE  
FEMUR—REPRODUCTION OF THE BONE—SUBSEQUENT  
DISEASE ABOVE AND BELOW THE KNEE—  
AMPUTATION—RECOVERY.

BY E. S. COOPER, A.M., M.D., PROFESSOR OF ANATOMY AND SURGERY  
IN THE UNIVERSITY OF THE PACIFIC, SAN FRANCISCO.

[Communicated for the Boston Medical and Surgical Journal.]

CASE.—Master J. G., aged 16, was admitted into the Pacific Clinical Infirmary May, 1857, for long-standing enlargement of the lower end of the femur, which had increased and become so painful that finally the patient was hardly able to walk. It was in this condition that I first saw him. It was at once apparent that operative procedure would be necessary, but to what extent I was unable to determine prior to commencing it.

My plan was to make an incision through the periosteum so as to expose the bone fully, and afterwards to drill it in several places, take out a longitudinal section, or exsect an entire portion, as the case should demand. After opening the periosteum, which was found thickened to four or five times its natural condition, and was readily peeled from the bone, the latter was found so much softened and diseased as to require the exsection of a portion entire. The lower end was first removed to just above the condyles, when it was easy to perceive that a greater amount still was diseased. Three inches more of the shaft of the femur were then removed, which extended a very little above the point at which the bone was found diseased. The periosteum was much thickened over the entire diseased bone, though not affected sufficiently to require cutting away.

After removing the diseased bone described, a careful examination was made to ascertain if any other structures were involved in the disease. The articulating face of the tibia was found healthy, and there was no evidence of any portion of that bone being diseased, so the exsection was concluded.

*Dressing.*—A piece of lint wet with an evaporating lotion was placed in the wound, the limb extended, and a roller applied as tightly as the patient could conveniently bear, commencing at the toes and extending above the middle of the thigh. Care was taken to have the foot and leg drawn out for several weeks, to prevent shortening while reproduction of bone was taking place.

The patient suffered little inconvenience from the operation, and in two months was able to move about upon crutches. Everything went on favorably for over four months. Finally, however, in spite of efforts to prevent it, the burrowing of purulent matter occurred in the thigh, and caused a high grade of constitutional irritation, which continued with varying degrees of intensity for about eight months, when the symptoms became such as to forbid the idea of a recovery without the loss of the limb. Though the wound had been kept open, and a roller all the time tightly around the limb, purulent matter was found burrowing in the thigh from the knee up to the region of the hip-joint, and even above. The tibia had become greatly enlarged, from the articular extremity downwards to nearly the middle of the bone.

Amputation becoming necessary, it was performed twelve months after the first operation, in the upper third of the thigh, and the patient, after a somewhat tedious convalescence, recovered.

*Examination of the Limb.*—On opening the soft parts to the bone, the latter was found healthy above the knee-joint. The portion of bone taken away had been reproduced, and was well formed, notwithstanding the disease of the surrounding soft parts in which it had been developed. Well formed capsular, crucial and lateral ligaments were found, attaching the newly-formed condyles of the femur to the upper end of the tibia. A tolerably



well-developed synovial membrane was also present, and in fact a joint formed throughout, though somewhat weak from want of exercise, yet perfect in every particular.

On cutting into the upper extremity of the tibia, its cancellated texture was found almost entirely absorbed, nothing remaining but the cortical portion of the bone, and this condition continued down to near the middle of the leg, although to an external view it presented a perfectly normal appearance, excepting an enlargement of the bone.

*Remarks.*—This is a case presenting two features of peculiar interest. One is the reproduction of healthy bone under all possible disadvantages, and the other is a persistent tendency to disease of bone which sometimes occurs, but which is often to be accounted for upon no known principles of pathology, and which is not only interesting but important to the operative surgeon. By the accumulation of cases of the kind, the fact will be established that certain cases will terminate in the loss of the limb in spite of his skill and efforts to save.

There are some constitutions in which the tendency to disease of bone is such that the slightest injury, such as a sprain or a bruise, will produce caries, hypertrophy or necrosis, and in such persons subsequent disease is very apt to follow operations for exsections, drillings, &c. &c.

This is a subject that has heretofore attracted but little attention among surgeons, but it merits the greatest consideration, and will ere long receive the attention it deserves. This specimen of reproduced bone, ligament, synovial membrane, &c., is preserved in the Pacific Clinical Infirmary of this City, where medical men, who may be visiting this coast, are respectfully invited to call whenever it may be convenient to themselves.

The reproduced condyles of the femur are smaller than natural, but otherwise well developed, and the specimen is so prepared as to show not only the newly-formed bone but also the ligaments.

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#### ON METALLIC LOOP SUTURES IN AMPUTATIONS AND SIMILAR OPERATIONS.

BY F. B. A. LEWIS, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

WE accept it, as granted, that the profession in general consider the metallic suture much less irritating than the common organic one, and many forms are at present in use; but having seen the difficulty with which the flaps, after amputations, are sometimes induced to unite, not only in times of hospital gangrene, but in abnormal constitutions, and in the heat of summer, I would propose a form of suture, which will not only tend to aid the union of such surfaces, under these circumstances, but be much more convenient.

It is composed of bits of silver wire, of different lengths, according to the thickness of the flaps. These are each twisted, or soldered together at the ends, so as to form loops. One of these is placed over the edges of the flaps, projecting to the usual distance for sutures, and then a pin is passed through both the ends of the loop and the two flaps. As many of these as necessary are placed along the cut surface, which retain it in close apposition, and adjust the edges with great nicety. Bits of cork, or other substance, can then be placed upon the projecting pin points, that they may be no inconvenience, by catching in the clothes, &c. These I believe to have an advantage over the other forms of silver suture, in being more easily applied, and over the common one:

1st. By being much less irritating, and therefore promoting union by first intention.

2d. By being much more easily applied, as double the number can be adjusted in the same length of time.

3d. They can be readily and quickly changed as to position, either nearer to the edge of the wound, or more distant from it; so that in case ulceration begins at any one point, or the stump is too full at a particular spot, the pin can easily be withdrawn, and the loop placed at a different part of the surface.

4th. They are more readily removed, when the period arrives for the whole number to be dispensed with; and

5th. They can be kept in any quantity ready for use, doing away with the trouble of threading needles; and in military practice the surgeon could have a box of these loops and pins at hand, which may be quite a convenience, and having been thoroughly cleansed, they may be used several times.

Perhaps this may be of no particular importance; still, however, not much improvement can be made, in surgical or medical science, unless all new ideas are communicated, be they of consequence or otherwise, and this may, upon more extensive trial, merit the attention of the profession.

## RESEARCHES UPON THE NATURE AND TREATMENT OF ASTHMA.

BY DR. DUCLOS (OF TOURS), PHYSICIAN OF THE HOSPITAL ST. GATIEN.

[Translated from the Bulletin General de Thérapeutique Médicale et Chirurgicale de Paris, April, 1861, by THOMAS WELSH, M.D.]

MY illustrious master, Professor Trousseau, made use of the following expressions in his clinical lecture at Hotel Dieu.

"Doctor Duclos, of Tours, has proved that there is an herpetic diathesis in almost all asthmatics. I have almost always observed the same fact.

"Thus, when asthma assumes for some time the continued type of which I have spoken above, with an increased secretion from the bronchia, he thinks an eczematous eruption, similar to that we



see so often on the skin and mucous surfaces, is formed on the pulmonary mucous membrane. This theory of M. Duclos explains to a certain degree the fantastic form of this species of asthma. But it does not afford an explanation of the intermissions or remissions of the dyspnœa, which still have to be accounted for on the supposition that they are of nervous origin."

My object in the present article is to show how I have been led to this theory of asthma, and on what considerations and facts it is based. I wish to show that it alone explains the various forms of asthma, the intermittent and fugitive as well as the continued type. I wish, lastly, to mention what consequences I have drawn from it as regards therapeutics, and how treatment has confirmed the opinion I formed of the nature of the disease.

It is readily understood that I do not intend writing here a monograph on asthma. That would exceed the limits I have imposed on myself. I am compelled to limit myself to a simple description of my own observations.

It will with difficulty be imagined into what confusion the want of precision in medical language has thrown practitioners in speaking of asthma. One individual has habitual oppression. He gets out of breath at the least effort, at every walk a little brisk, especially at every effort to go up stairs. This dyspnœa is increased at times, diminished at others, but always persistent. There may or may not be observed a disturbance of the heart, and the patient is declared incurably affected with asthma. At other times the dyspnœa appears, especially some hours after eating. To percuss the transverse colon, and especially its junction with the descending colon, and there to recognize a considerable accumulation of gas, is not thought of. The dyspnœa alone attracts attention, and here again asthma is diagnosed. In other cases, a chronic inflammation has produced a thickening of the mucous membrane of the bronchia, with thick and abundant secretion. The respiration is habitually embarrassed, but the least motion increases the dyspnœa, from this very simple reason, that it increases the respiratory movements, and requires the introduction of a larger quantity of air into the lungs. Here, again, the prominent symptom is dyspnœa, and it receives the name of asthma.

In another individual, the respiration is accelerated under the influence of hysteria. A sibilant rale is produced, more frequently laryngeal than bronchial; it has all the apparent character of that which accompanies a true paroxysm of violent asthma; its duration is nearly the same, and again an asthma is diagnosed.

I could multiply, *ad infinitum*, these examples of designation of asthma, improperly applied to diseases which differ essentially from it. There is not a practitioner who has not seen others guilty of, or had to reproach himself with, this perversion of language. However, it cannot be too often repeated how abso-

lutely necessary it is to have a proper understanding of the designation of morbid species, in order not to reason upon unities of a different nature. Here, the confusion belongs frequently and exclusively to the symptoms of asthma, accompanied or not by appreciable anatomical lesions. This is a grave error; asthma is not merely a dyspnœa; it is not, like the latter, only a symptom; it is a morbid species, a complete disease, essential, characterized by more or less frequently-repeated attacks, and accompanied by a dyspnœa, whose chief characteristic is its periodicity.

Sauvages (in his nosology) understood this perfectly, when he wrote this definition: "*Asthma est morbus chronicus, cujus præcipuum symptoma est periodicè recurrens, spirandi difficultas. Dyspnœa est difficultas spirandi, unum symptoma et non morbus.*"

There was a necessity of my proving these capital facts, in order to have it understood upon what disease my pathological and therapeutical researches have been employed. It will then be well understood that I am speaking not of dyspnœa as a symptom of an affection, either of the lungs, heart, large vessels, large intestines, or of an hysterical character, but of a special, essential disease characterized by paroxysms of oppression, re-appearing at intervals more or less regular and frequent, and in the mean time the respiratory functions are performed with their usual regularity.

After having thus exactly defined what seems to me alone deserving the name of asthma, I have asked myself what could be the nature of it; and to arrive at that, I have read attentively what authors have written of it, and have minutely studied the cases which have been presented to my own observation.

Here is what I have seen.

Most authors, from the most ancient to the most modern, have confounded asthma with dyspnœa, and have thus committed the error of ranking under the same name a great number of very various diseases which can cause habitual or frequent oppression.

From time to time there are found some admirable descriptions, regarding asthma as an essential disease, special in the same way as pneumonia, typhoid fever and scarlatina are; but it is true, however, that with the exception of Hippocrates, Aretæus, Van Helmont, Willis, Cullen, Sauvages and Frank, whose opinions are mentioned in the excellent thesis of my former colleague and friend, M. Mercier Sainte Croix, most authors have committed the error I have mentioned.

In our day, MM. Rostan, Louis and Beau have in some sort denied to asthma the title of essential disease. They have made of it a simple symptom, dependent on an affection of the heart.

M. Trousseau has so successfully refuted these opinions in his medical clinic, that it is unnecessary to recur to them.

There remains for me, then, only one thing to notice, viz., the



opinion of this distinguished practitioner, who regards asthma as a pulmonary neurosis, either simple or grafted upon organic lesions, but becoming then a complication and not a symptom.

The more I advance in the practice of medicine, the more my disbelief in neuroses increases; so frequently the phrase, nervous accidents, is only an expression which conceals our ignorance! Besides, I do not see the proper conditions in it for the development of a neurosis. One individual is attacked with repeated sneezings; his nose runs; then in the evening a paroxysm of asthma occurs. Another goes into a mill, is exposed to the dust of wheat; he is taken with asthma, and will not be affected with it again until he is exposed again to the inhalation of the particles of flour. The smoke from wood, tobacco, powdered ipecac, certain vapors and odors, produce the same result.

In another, a blister or cauterly which has been kept open for a long time is suddenly dried up, and an attack of asthma supervenes. In another, a cutaneous affection, an eczema or herpes, disappears, and a violent attack of asthma has taken its place. All this has certainly not the appearance of a neurosis. I have said so to myself every time I have seen it, and have repeated it, and still sought for its explanation. Then, I have been frequently struck with this fact, that the pure asthmatics, in general, those with truly essential asthmas, have been affected with cutaneous affections of variable degrees of intensity, and were born of parents affected under some form or other with the darts of diathesis. The extreme frequency of this coincidence made a great impression on me; I made a note of it, and asked myself if asthma was not, after all, a simple bronchial pruritus.

This opinion was confirmed by observation, and on further reflection I soon found that with every variety of asthma there was a corresponding variety of herpetic eruption of the bronchia; that thus if we allow a simple urticaria to exist in the bronchia, a fugitive, and, if I may be allowed the expression, vaulting eruption, we shall have a rapid, fugitive form of asthma, returning and disappearing rapidly.

If we admit that erythema exists, we shall have a more persistent attack of asthma, much longer in its duration and attended with less irregularities, but presenting to a certain degree a remittent character. Lastly, if we admit the existence of eczema, we shall have asthma of a continued form, with considerable secretion of the bronchia, preserving, however, the character of intermissions and exacerbations; it will be intermittent, because, on the mucous surface, as on the skin, eczema produces successive crops of eruption and not a single one. Let us rapidly develop this manner of regarding asthma, and it will be easily seen that it alone interprets the irregularly intermittent progress of the disease, and accounts for the frequently so strange causes which appear to provoke it.

How is urticaria really produced ?

Under what circumstances is it developed ?

What progress does it follow ?

A man, in the fulness of health, eats particular articles of diet, or else does not digest those to which he is accustomed, or else is exposed to the contact of certain substances, breathes certain odors, or is subjected to certain atmospheric influences; immediately, without any precursory phenomena or symptoms, his skin becomes the seat of a general or partial eruption; eruption of a peculiar, specific appearance, painful pruritus, frequently intolerable, which lasts for some hours or days; then these symptoms completely disappear, with or without the intervention of medicine; then, under the same influence, and sometimes without appreciable cause, the itching comes back again, with the same train of symptoms. The patient complains of extreme tension of the skin. "My skin is too short," said one of them to me in his picturesque language, "it seems to me that it is going to burst."

The eruptive phenomena disappear, and return suddenly in some cases. It often happens that the return of the eruption occurs periodically, at the same hour, with almost mathematical certainty and regularity, and devoid of any perceptible condition which can explain its perfect periodicity.

Lastly, it often happens that the urticaria is reduced to an insupportable itching, and that the eruption is so sparse and so perfectly isolated, that it can be hardly perceived. All that then remains is the itching, with the sensation of great tension of the skin. This is the most common form of urticaria.

Now, let us suppose all these symptoms transported to the bronchia, and we have all the conditions of asthma in its most usual forms.

1st. Sudden attack, the causes of which are the most frequently inexplicable.

2d. Itching and eruption on the bronchial surface, with considerable tension, and then respiratory anxiety, extreme dyspnœa, the calibre of the bronchia becoming too narrow to admit, at a given moment, the proper and necessary quantity of air.

3d. Complete cessation of the attack, after many hours and days, when the bronchial exanthema has disappeared, like the cutaneous.

4th. Complete return of the crisis, when a new exanthematous eruption takes place in the bronchia, and the intermittent, periodical return, as in the cutaneous urticaria, and sometimes even regularly intermittent and periodical.

It is impossible, I think, to see or imagine a more complete identity. Is this not a true attack of essential asthma, like that M. Trousseau has so admirably described in the following lines:—"An individual, in the plenitude of health, goes to bed as well as usual and sleeps quietly. In one or two hours after, he is sud-



denly awakened by an attack of the most painful oppression. He experiences a feeling of compression and stricture in the chest; a great obstruction. His respiration is difficult, and accompanied by a laryngo-tracheal wheezing.

"This dyspnœa and anxiety increase; he raises himself in bed, supporting himself upon his hands, his arms crossed behind, the face swollen, sometimes livid, reddish or violet, eyes projecting, skin covered with sweat; he is soon obliged to get out of bed, and if the room he occupies is not sufficiently high-studded, he runs to open the window to obtain, from without, the air he stands in need of. However, the attack lasts one or two hours or longer; then the storm is calmed. The next day he attends to his business, and leads his usual life.

"In the evening, and almost at the same hour, the paroxysm is repeated, absolutely similar to that of the night before, leaving the next day, to return the following night, and thus returning for three, four, five, ten, twenty, or even thirty days."

Let us forget, for an instant, that this scene is passing in the bronchia. Let us omit the symptoms peculiar to the seat of the disease.

Is this not truly a very complete description of an attack of urticaria? If, now, instead of urticaria, we have eczema, another form of eruption appears, and it corresponds to another form, and a very common one, of asthma. Let us see how eczema is actually developed and progresses, and let us take as a type the eczema of the face, frequently so improperly described under the name of erysipelas.

A man, very well otherwise, has either upon his ear or nose some small, insignificant, hardly perceptible crusts. He attaches so little importance to it, that he neglects even to attend to it. Then one day, either in consequence of indigestion, or local irritation, or the impression of cold, or even without any appreciable cause, a little red eruption appears on the face; it increases rapidly, extends over the whole face and even the scalp. A multitude of characteristic vesicles, peculiar to eczema, covers the parts attacked, but covers it by successive and not simultaneous crops, successive not in different points only, but even the same places; then the vesicles break, and an abundant serosity exudes; very thin, superficial crusts form; and if new eruptions of eczema do not take place, the disease is terminated. But the most frequently successive eruptions prolong the duration of it; and it is reproduced and cured for eight, ten, fifteen or twenty days. Thus, at first, an eruption very inflammatory, then the surface covered with little vesicles, then an abundant serous exudation, which shows that the disease is decreasing.

Lastly, eruptions which take place before the complete disappearance of the preceding one; so that there are many exacerbations, but no true intermissions, since there is never complete

appyrexia. That is eczema. Let us see to what form of asthma it corresponds. A patient is attacked with coryza, insupportable, frequent and almost incessant sneezing, without any cause to explain this cold in the head. The nose runs copiously; the eyes are swollen and filled with tears. Very soon the nasal mucous membrane becomes free, and a paroxysm of asthma, with all its usual characteristics, takes place; dyspnoea, wheezing and the strange rales of the bronchia.

[To be continued.]

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## Bibliographical Notices.

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*Lectures on the Diagnosis and Treatment of the principal forms of Paralysis of the Lower Extremities.* By BROWN-SEQUARD, M.D., F.R.S., Fellow of the Royal College of Physicians, Laureate of the Institute of France, &c. &c. Philadelphia: J. B. Lippincott & Co. 1861. Pp. 118.

THESE are four lectures, comprising the substance of a part of a course of lectures on various subjects, delivered a year or two since in Edinburgh, Glasgow and Dublin. They are upon the diagnosis, pathology and treatment of the two principal forms of paraplegia, the one arising from an excitation that has come to the spinal cord from a sensitive nerve, or other source of irritation in the viscera, skin, or mucous membrane, which he terms *reflex paraplegia*, no lesion being generally apparent in the cord in such cases; and the other, consequent upon either *congestion* or *inflammation of the spinal cord*.

Among other characteristics of reflex paraplegia, as distinguishing it from that dependent upon lesion of the cord, the author gives the following:—

“1. An outside excitation, starting from some sensitive nerve, exists before the reflex paralysis appears.

“2. The variations in intensity of the outside excitation are often followed by corresponding variations in the degree of the reflex paralysis.

“3. When the outside excitation ceases altogether, the reflex paralysis also sometimes ceases altogether, and in a short time.

“4. The various modes of treatment of paralysis are usually unsuccessful in cases of reflex paralysis, so long as the outside excitation exists.

“5. *Post-mortem* examinations, in cases of reflex paralysis, show that this affection does not depend upon any marked organic alteration.”

The phenomena of reflex paraplegia he is inclined to attribute to contraction of the bloodvessels either in the *cord* itself, in the *motor nerves*, or in the *muscles* by which the function of nutrition of the part is directly interfered with. “A contraction of bloodvessels in the spinal cord, I have seen,” he says, “(in the vessels of the pia mater) taking place under my eyes, when a tightened ligature was applied on the hilus of the kidney, irritating the renal nerves, or when a similar operation was performed on the bloodvessels and nerves of the suprarenal capsules.” Again, it is said that “irritations starting from the urinary and other organs probably produce a paraplegia by a contraction rather of the bloodvessels of the spinal cord than of those of the motor nerves and muscles.”



Several cases illustrative of the influence of outside irritation in the production of reflex paraplegia are given. Disease of the uterus, of the urethra, inflammation of the bladder, disease of the prostate, nephritis, enteritis, affections of the lungs and pleuræ, diphtheria, teething, irritation of the nerves of the skin, disease of the knee-joint, and neuralgia, all seem to play their part in causing this affection.

A distinguishing pathological feature between this form of paraplegia and that dependent upon congestion or myelitis, would seem to be in the diminished quantity of blood in the spinal cord; there being in the other form an augmentation of this fluid. Upon this important distinction is based the treatment indicated in these two forms of paraplegia. In the one, the object being, after getting rid of the irritating cause, to increase the amount of blood, and in the other to diminish it.

The remedies which Dr. Séquard has found most efficient in increasing the quantity of blood in the vessels of the spinal cord are *counter-irritants*, whose secondary effect is to augment the calibre of the vessels by relaxation, *position*, this being such as to promote the gravitation of the blood to the affected part, by raising the head and legs; *food*, which should be nutritious; and certain remedies that have the power of augmenting the vital properties of the spinal cord. Among the latter he mentions *strychnia*. Our author does not, in accordance with the generally received opinion, regard this remedy as a direct excitant to the cord, but as acting, first, to increase the amount of blood in the cord, and secondly, in some special manner upon its tissue, by which its vital properties are increased. Practically, therefore, it must be regarded as a spinal stimulant.

When this form of paraplegia arises from irritation in the prostate, or urethra, vagina or uterus, he recommends the cautious local use of *belladonna*, the object being to diminish the irritation as far as possible. The internal and constant use of this remedy would tend to increase the pathological condition of the cord by a still further contraction of its bloodvessels.

The remedies for paraplegia dependent upon congestion or inflammation of the spinal cord, are *belladonna*, which, as before stated, seems to have the property of diminishing the amount of blood at the vertebral canal, and hence the vital properties of the cord and spinal nerves. *Ergot*, our author regards also as having a specific action upon the bloodvessels of the spinal cord, causing their contraction more effectually and certainly than the last-named remedy. The following is a summary of the indications of and contra-indications to its use.

"1st.—Ergot must be employed in cases of paraplegia with irritation of motor, sensitive, or vasa-motor nerves—i. e., in congestion or inflammation of the spinal cord, or its meninges.

"2d.—Ergot must be avoided as an agent only able to increase the paralysis in cases of paraplegia without symptoms of irritation, such as cases of the reflex paraplegia, or of non-inflammatory softening of the spinal cord."

*Iodide of potassium* he recommends as the only known remedy that may be employed without danger in the various forms of paraplegia, being especially useful in cases of white softening of the spinal cord, due to the fatty degeneration of the bloodvessels of that organ. In cases of a syphilitic nature, its curative powers are often quite marked.

*Stramonium*, *hyoscyamus*, and *Indian hemp*, are also mentioned as possessing powers similar to those of *belladonna*, although in a less

degree. *Ammonia, sulphate of quinia and iron* he suggests may be used with benefit, when the symptoms of irritation are not violent, and the pulse is weak and slow.

In summing up the various means of treatment of paraplegia, it results,

“1. That in cases of paralysis of the lower limbs, with symptoms of irritation of the motor, sensitive and vasa-motor nerve-fibres of the spinal cord, or of the roots of its nerves, the proper treatment consists in the use of some of the following agents or means: belladonna, ergot, hyoscyamus, stramonium, Indian hemp, dry cupping, blisters, moxæ, issues, the hot douche, and also, sometimes, the iodide of potassium, ammonia, sulphate of quinia, iron or cod-liver oil.

2d.—That in cases of paraplegia without symptoms of irritation of the spinal cord, or of the roots of its nerves, the rational treatment consists in the use of strychnia, sulphur, the cold douche or shower bath, and also of the iodide of potassium, and frequently, ammonia, quinia and iron.”

We would say, in conclusion, that this little treatise, on a most important and too often incurable class of diseases, will be found of much practical interest, and coming from one of the most profound physiologists of the day, must be regarded as an extremely valuable addition to medical literature.

## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JULY 11, 1861.

STIMULANTS IN MEDICAL PRACTICE.—The question of the expediency of the free use of stimulants in medical practice seems to be as far from being definitely settled as ever. The moral question, which a few years since so profoundly agitated our community, seems at present to have been set aside from sheer exhaustion, and to it has succeeded the medical and physiological one. Bourbon whiskey and its congeners, with other ingenious stimulants, put up in attractive bottles, with picturesque not to say artistic envelopes or labels, are actively at work on apothecaries' counters instead of occupying the more vulgar field of the dram-shop and bar-room, and prominent physicians do not hesitate to give good-natured certificates to aid the sale of these articles as remedies for disease. We should as soon think of squaring the circle or inventing perpetual motion as of coming to a categorical conclusion, pro or con, on this subject. But it is very evident that extreme views either way are liable to cause much harm, and when these views tend to harmonize with the natural or depraved appetites of poor human nature, the physician incurs a grave responsibility who promulgates or defends them. The same is true, if we merely regard their influence on men's physical organization. The boldness with which Dr. Todd, in his clinical lectures on certain acute diseases, published in London last year, has advocated what most physicians would call the excessive use of stimulants in the treatment of disease, is a case in point. Few physicians can read these lectures without being startled at the freedom with which he employs them; as, for instance, when he gives six drachms of brandy every hour to a girl 17 years old, sick with acute rheumatism; or to another female, suffering from pyæmic inflammation, a pint of brandy a day for a month at a time!



We have not space nor time, had we the inclination, in the midst of these July heats, to enter into a physiological discussion of the question whether stimulants are to be regarded in reality as food or tonics; but one thought has struck us, namely, this—that practitioners are too apt to advocate a *routine* use of them in the treatment of certain diseases, without reference to the special symptoms or condition of the individual patient. Such is the much vaunted use of these articles in the treatment of erysipelas and diphtheria, for instance. We do not deny the indications for their employment in many cases of these diseases; but it has occurred to us to see cases of both in which they were not welcome, and appeared to be decidedly injurious to the patient. We have always felt that the instinct of the sick is a very important aid to the other indications in determining the use of such remedies, and have not as yet seen any reason to distrust its significance. Our thoughts have been turned in this direction by reading, in the May number of the *Edinburgh Medical Journal*, an able and interesting article by Dr. W. T. Gairdner on the use of alcoholic stimulants in Hospital medical practice, with illustrations from the records of the Royal Infirmary of Edinburgh. Dr. Gairdner holds no extreme opinions with regard to the use of stimulants in treating disease, and is fully alive to all the questions, moral, physiological and economic, which should guide a judicious physician in administering them. His paper is a very interesting one, and perhaps at some future day we may print it in full. We copy his concluding remarks, together with a tabular statement of the average consumption of stimulants during five years in the Institution under his charge.

“The object of this paper will be served if it shall be the means of procuring more accurate records than hitherto of the actual expenditure of alcoholic stimulants in hospital practice. Considering the vast moral issues involved in this question, and considering also the important economic interest which the governors of our public charities have, in keeping within reasonable bounds the administration of stimulants, it is surely not too much to suggest that in every hospital in this country monthly returns should be made, exhibiting, as in the Edinburgh Royal Infirmary, the aggregate expenditure in each ward, and also a calculated average of the amount supplied to each individual patient. By such averages, physicians would be insensibly guided to the truth; and the results of various practice would, when carefully compared, supply data hitherto wanting for the settlement of a great many scientific questions connected with alcoholic stimulants.”

*Average Daily Consumption of Alcoholic Stimulants per Patient during five successive years, in the Royal Infirmary, Wards 4, 15 and 16.*

	1856.	1857.	1858.	1859.	1860.
GENERAL WARD, Males—					
Wines (ounces) - -	0.158	0.465	0.710	0.928	0.739
Spirits (ounces) - -	0.056	0.312	0.287	0.184	0.454
Malt liquors (pints) -	0.039	0.040	0.025	0.053	0.058
GENERAL WARD, Females—					
Wines (ounces) - -	0.446	0.534	0.799	1.498	1.200
Spirits (ounces) - -	0.295	0.312	0.223	0.164	0.510
Malt liquors (pints) -	0.064	0.069	0.048	0.061	0.048
GENERAL WARD, Females—					
Wines (ounces) - -	0.715	1.256	1.734	1.725	1.140
Spirits (ounces) - -	0.069	0.083	0.346	0.052	0.135
Malt liquors (pints) -	0.023	0.029	0.135	0.069	0.027

A NEW ANÆSTHETIC—KEROSOLENE.—At the meeting of the Boston Society for Medical Improvement, held on Monday evening last, a liquid bearing the above name, and suspected of possessing anæsthetic properties, was presented by Dr. Bowditch, from Mr. Merrill, and by a vote the Hospital Surgeons, with Dr. Bacon, were requested to test its powers, and Dr. H. J. Bigelow was requested to make a subsequent report upon the subject to the Society. As some time must elapse before such a report can be made, Dr. Bigelow has, at our request, furnished us the following statement of his experience of its powers up to the present time.

MESSRS. EDITORS,—In reply to your request for information concerning the “kerosolene,” and although the evidence is incomplete, I see no impropriety in my furnishing you with such observations as I have been able to make since its introduction to the Medical Society last evening, by Mr. Merrill, Dr. Dickinson and Dr. Bowditch, as an untried agent of suspected anæsthetic properties, which had accidentally affected a man sent in to clean a cistern at the kerosene works, and which had been afterwards tried on flies and mice.

This fluid presents remarkable properties. It is tasteless as water, volatile and inflammable as ether, though burning with a dense white light; of a faint chloroform odor, which, as it evaporates, changes to that of coal tar, and then disappears absolutely and altogether; so that a handkerchief saturated with the fluid has, at the end of a few minutes, when dry, no odor at all, nor has the room or atmosphere where it has been used, any trace of its presence. Both ether and chloroform leave, in different degrees, a persistent, *fade* and stale aroma after evaporation, as is well known. They are also far less agreeable to inhale than this new agent, which has thus an obvious advantage over either of them.

A few whiffs were sufficient assurance of its efficacy as an anæsthetic, which, with its other qualities, as I ventured to remark, would place the kerosolene beyond any known anæsthetic, provided its use was not followed by headache, vertigo, or other unpleasant symptoms, and provided it should prove as free from danger as ether.

Subsequently, I inhaled the new vapor, which Dr. Hodges at my request administered. Complete insensibility supervened, lasting several minutes, with some diminution of the volume of the pulse. Its effect was wholly agreeable, leaving neither headache nor nausea, nor bad taste.

I have this morning administered it to three surgical patients. The first, a girl of 19, presenting some hysteric tendencies, having thrust some twenty needles in her leg, was wholly insensible during the extraction of four of those which remained. Yet there was more cough than I had expected from the wholly unirritating odor of the vapor, more muscular rigor than usual in favorable anæsthesia, and more intermittence of the pulse.

In a second patient, to whom it was given preparatory to an operation upon the face, insensibility was equally complete. But this woman did not take it kindly, and its complete effect was attended by so feeble and intermittent a pulse as to lead me to desist until she had recovered. A second attempt reproduced, with anæsthesia, the feeble and intermittent pulse, and I again desisted. Upon her recovery, I gave her common ether vapor, which she afterwards said was less agreeable, but which was followed by complete insensibility, the



pulse beating steadily and full, at 76. Though this patient perhaps succumbed more readily to a third anæsthesia, there seemed to be in the two first trials a certain degree of purple color and asphyxia, with its attendant spasm, which I have elsewhere described as an occasional and disagreeable symptom of attempted anæsthesia. To guard against this asphyxia, which might possibly have resulted from the folded towel, upon which I habitually administer ether, I tried in the next case an open sponge. The subject required a considerable incision for a mammary abscess, and was a patient of Dr. H. G. Clark, with whose assent I tried the kerosolene. In spite of the open sponge, the symptoms of asphyxia again appeared, suggesting to Dr. Clark before operating their resemblance to those resulting from charcoal gas. The color was livid, and the rigidity marked. In each of these cases, the quantity used was from one to two ounces.

In conclusion, it may be remarked of these three cases, that they are insufficient for satisfactory demonstration, and that their common and unfavorable symptoms may well have been but a coincidence; yet they suggest some caution in the use of the kerosolene vapor. It is probably more potent than that of ether, requires a free admixture of air, and may produce upon the system some impression or influence, other than that of the mere intoxication attendant upon the use of ether. In awaiting further evidence, it may be considered established that kerosolene is an anæsthetic of undoubted efficiency, and that it possesses certain remarkable and attractive properties peculiar to itself.

*Boston, July 9th, 1861.*

H. J. BIGELOW, M.D.

COUNT CAVOUR AND HIS PHYSICIANS.—The enemies of Italy must erect a statue to Sangrado. But it is difficult for us to read the accounts transmitted to us of the disease and treatment of Count Cavour with patience. Surely the Papal and Austrian authorities will decree a mural crown to the three physicians who caused the illustrious Cavour to be bled thrice on the first day of his illness, twice on the second, and a sixth time on the third; and when finally he was at the last point of weakness, and beyond the possibility of venesection, placed his bloodless and enfeebled frame in a hot bath, and swathed him in mustard plasters. The combination of fever, repeated loss of blood, heat of weather, hot baths, and mustard poultices, was, indeed, more difficult to sustain than any burden of diplomatic anxiety; and all Europe feels with indignation, that a life which could ill be spared has been sacrificed to the antiquated prejudices of the Italian physicians, who still brandish so recklessly the ancient ensign of surgery. We must not be unjust to those who undertook the grave charge of this great life, in which the liberties of Italy also lived, and we would not aggravate the grief and the pain which the unhappy event of their treatment must inflict. We may set down much of the alleged vacillation in determining the nature of the disease to the restless falsity of rumor, which is fertile in variations. The diagnosis seems to have been pretty clear from the first. The prior symptoms were febrile, and accompanied with cerebral congestion. The physicians ordered six bleedings, and at the end of these, on the second day, the symptoms were already announced in the bulletins to be "typhoid"—that is, weak and asthenic. The true origin of the fever was now clearly seen, for there were marked accesses and remission of fever at stated intervals. The accesses were preceded by shivering fits, and the attack was declared to be double tertian ague. The loss of blood produced delirium in the periods of accession; nevertheless the bleedings were continued up to the seventh time, the physicians apparently taking fresh courage at each natural remission of the fever; and, finally, on the last day, we read that a hot bath was ordered, to produce a weakening effect (*affaiblissement*), because they dared no longer bleed. The surface was now cold, and so mustard plasters were applied. Thus was this great minister tortured, and brought surely within

the clutches of death. Seneca choose to seek death by opening his veins in a warm bath, and there quietly allowing his life to ebb away. The substitution of seven successive bleedings *ad deliquium*, with the intercurrent application of mustard plasters and cabinet councils, to conclude with the hot bath and more mustard plasters, seems to us to be a more cruel, but hardly a less sure device.—*London Lancet*.

**OXYGEN AS AN ANTIDOTE TO ASPHYXIA FROM CHLOROFORM AND ETHER.**—M. Ozanam has been experimenting with oxygen as an antidote to the asphyxia produced by anæsthetics, and finds that it acts much more promptly than atmospheric air to restore consciousness, producing its effects in less than half the time required by the latter. So long as there was the least sign of respiration, although the beatings of the heart had become imperceptible, consciousness was easily restored; in one instance, where both had ceased, it was powerless. These experiments confirm those of M. Duroy, made several years since. As a matter of precaution, then, it seems advisable for surgeons who employ chloroform, when undertaking important operations, to have at hand a quantity of oxygen gas ready for any emergency that may arise. Man resists the influence of chloroform better than the feeble animals which were experimented on; and so long as respiration continues, however slight or infrequent, oxygen will be likely to be efficient as a restorative.

DR. FREDERICK ROBIE, of Fordham, Me., has been appointed a Paymaster in the regular army of the United States, and will resign his situation as a member of the Governor's Council, and enter upon the duties of his office at once.

#### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, July 6th, 1861.

##### DEATHS.

	Males.	Females	Total
Deaths during the week, . . . . .	38	32	70
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	37.9	34.2	72.1
Average corrected to increased population, . . . . .	..	..	80.5
Deaths of persons above 90, . . . . .	..	..	..

##### Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Varicella.	Dysentery.	Typ. Fev.	Diphtheria.
15	6	0	2	6	0	1	1	0

##### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	30.021	Highest point of Thermometer, . . . . .	90°
Highest point of Barometer, . . . . .	30.188	Lowest point of Thermometer, . . . . .	51°
Lowest point of Barometer, . . . . .	29.700	General direction of Wind, . . . . .	S.W.
Mean Temperature, . . . . .	70°-8	Am't of Rain (in inches) . . . . .	0.00

##### COMMUNICATIONS RECEIVED.—Hospital Construction.

BOOKS AND PAMPHLETS RECEIVED.—A Treatise on the Practice of Medicine. By Edwin R. Maxson, formerly Lecturer on the Institutes and Practice of Medicine in the Geneva Medical College. Philadelphia: Lindsay & Blakiston, 1861.—On the Time and Manner of the Closure of the Auriculo-Ventricular Valves. By George B. Halford, M.D., M.R.C.P. London, Lecturer on Anatomy at Grosvenor Place School of Medicine. London: John Churchill, New Burlington Street, 1861.

MARRIED.—In Hingham 4th inst., Dr. Louis E. Partridge to Miss Rose E. Mann, both of Natick.

DEATHS IN BOSTON for the week ending Saturday noon, July 6th, 70. Males, 38—Females, 32.—Accidents, 2—apoplexy, 1—congestion of the brain, 1—disease of the brain, 3—bronchitis, 2—cancer, 1—chloera infantum, 6—consumption, 15—convulsions, 3—debility, 1—dropsy, 2—dysentery, 1—epilepsy, 1—scarlet fever, 2—typhoid fever, 1—infantile diseases, 2—intemperance, 2—disease of the knee, 1—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 6—marasmus, 1—paralysis, 1—puerperal disease, 1—disease of the stomach, 1—suicide, 1—syphilis, 1—teething, 1—unknown, 7—whooping cough, 1.

Under 5 years of age, 22—between 5 and 20 years, 10—between 20 and 40 years, 20—between 40 and 60 years, 13—above 60 years, 5. Born in the United States, 50—Ireland, 14—other places, 6.



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RESEARCHES UPON THE NATURE AND TREATMENT OF ASTHMA.

BY DR. DUCLOS (OF TOURS), PHYSICIAN OF THE HOSPITAL ST. GATIEN.

(Concluded from page 490.)

THE attack lasts the usual time, diminishing without entirely ceasing; then the inflammatory condition of the nasal mucous membrane takes place again, followed again by a new attack of asthma, and the same scene is repeated again in this way many days, and even weeks, always with paroxysms repeated at periodical, somewhat irregular intervals; between which the return to the normal condition is not absolutely perfect.

Each termination of a paroxysm is marked by an abundant secretion of ropy mucous matter, generally thicker and more catarrhal, as the disease approaches its termination. Every return of a paroxysm, on the contrary, is characterized by the suspension for some hours of this mucous exudation. Lastly, in its last stages, the disease is nearly continuous, the catarrhal condition becomes predominant, and takes upon itself the whole affection.

Let us analyze this phenomenon. What do we find in it?

An inflammatory condition of the nasal mucous membrane, extending rapidly to the trachea and bronchia, and producing there symptoms, characteristic of the locality attacked; successive inflammatory attacks, which produce each time a recrudescence, a more or less marked increase of these symptoms, and a more or less abundant secretion from the membranes attacked, and by the nature and quantity of which the more or less advanced period of the disease can be generally ascertained.

What is all this, if not a very exact description of an attack of acute eczema? only modified by its locality. This cannot be doubted. Asthma is nothing else than a bronchial pruritus, and the intermittent paroxysms are nothing else than the intermittent eruptions of a darts nature.

I have adduced the two principal types—to wit, eczema and ur-

ticaria—and have compared them. But it can be readily supposed that varieties of them are possible, shades between the two conditions. Urticaria, reduced to a simple itching, without any eruption, is it not an attack of dry asthma without any secretion, and of several hours duration? Is not eczema, with abundant secretion, and successively repeated, moist asthma of long duration, with copious expectoration?

In viewing asthma in this light, I am not attempting to lay down a fact without analogy in pathology. Are not all the mucous membranes frequently attacked by herpetic eruptions? Are not ophthalmia, angina, enteritis, cystitis, frequent manifestations of acute eczematous affections? Daily observation demonstrates this, and every day the important role which the herpetic diathesis plays in the production of so-called inflammations is made manifest.

If the preceding reflections are true—and they are, to my mind, incontestable—it is not in the nervous element, or, in other words, an unknown one, that the cause of the periodicity of these attacks of asthma, and the intermissions of its dyspnoea, are to be found. The dyspnoea is intermittent, because the herpetic eruptions are naturally intermittent and periodic.

Let us resume, then, all these considerations in repeating; asthma is an acute herpetic affection of the respiratory passages.

The nature of asthma being once established, it seems to me that its therapeutics would become simpler, easier, and more certain. I mean here prophylactic treatment of long duration, directed against the essence of the disease and destined to prevent the return of the attacks, and not of medication proper to each crisis, palliative treatment and of little efficacy.

In reading attentively what the authors of the most valuable monographs have written about asthma, I have been struck by the observation of how little weight was attached by them to prophylactic treatment. Hardly any important therapeutical indications were noticed, excepting those relating to hygienic measures; and—a very remarkable circumstance—a great number, repeating faithfully and with respect the errors of their predecessors, attribute a favorable influence to hygienic conditions more calculated to produce than to prevent a return of asthma. Thus, authors, so sagacious in other respects, recommend warm climates and insist upon the benefit to be derived from warm weather, although it has been generally observed that genuine asthma, the only one we are describing, is a disease of warm climates and weather.

How many similar errors I have met with, in regard to this disease! how many authors I have met with, who did not suspect what Hippocrates has, however, indicated—namely, that asthma is observed even frequently in infancy! How few are willing to appreciate to what degree asthma is a disease, free in its gyrations, and independent of every hygienic condition to which we pretend to submit it! And as to the preventive treatment, it is almost



always passed over in silence. A paroxysm comes; an effort is made to aid in its cure; sometimes even the credit is claimed of having largely contributed to it; but no active treatment is adopted to prevent the return of another attack. This inaction, based upon the perfect uncertainty prevailing with regard to the nature of asthma, is to be regretted. The paroxysm passed, the morbid element we had to combat was not much known. Nothing was done, because practitioners did not know what to do, and they did not wish to institute an useless treatment.

That was my view of the subject until my opinion upon the nature of the disease was well formed. I then thought, that if asthma is an herpetic affection, and if the manifestation in the bronchia of a dartrous diathesis be true, the return of it ought to be prevented by the means which are commonly employed to prevent the return of dartrous cutaneous eruptions. The preventive medication had from that time a basis; it reposed upon a theory, the truth of which was demonstrated to me. It became earnest experiment, instead of a blind empiricism.

Now, I had seen that of all the means calculated to modify the herpetic diathesis and prevent the reproduction of its cutaneous manifestations, those upon which the most reliance was to be placed were preparations of sulphur and arsenic. I then said to myself, I will give, first, the preparations of sulphur, the least offensive method, of easiest administration, and free from all danger; and in case they do not succeed, I will treat obstinate cases with the arsenical preparations. Of the preparations of sulphur, the sulphurous mineral springs, especially those of Baréges, Bonnes and Cautérêts, were the first that suggested themselves to my mind. These three had frequently, in my practice, produced such astonishing results in the treatment of cutaneous affections, granular anginas, herpetic diseases of the neck of the uterus, and those of Bonnes in some cases of chronic diarrhoea, that I thought I could rely upon their effect. My surprise was great to find them of no value at all.

I was at that point, already some years since, when a patient, affected with asthma, came to me to ask to be submitted to a course of treatment which had cured him of this cruel disease. He told me that for many years he had taken fifty centigrammes to one gramme of flowers of sulphur, sulphur sublimatum et lotum, every morning for twenty days in the month at first, and afterwards ten days only, and that he had been radically cured for many years—so completely cured, that he could take cold without the re-appearance of asthma! It can be readily conjectured that I authorized the patient to do so, and earnestly entreated him to follow this treatment. Nothing could please me more.

I had too fixed notions that the choice of the preparations of sulphur was not a matter of indifference, and that the action of sulphur sublimatum was not identical with that of Eaux Bonnes, Ba-

règes, Cautérêts or Saint Sauveur. I was too much convinced, that there are in the *materia medica* analogous substances, but that they cannot be substituted for each other. The sulphur sublimatum did not appear to me more like the sulphurous water, than cinchona was like quinia, or morphia like laudanum. That was, then, a new remedy to try. I did so, and the more willingly, as it could not produce any danger.

Now, from all the facts observed and trials made, I formed this conclusion, that sulphur lotum is a wonderfully powerful remedy as a preventive of asthma. All the cases in which I administered it have been modified; a certain number entirely cured.

The way I administer it, is this. I prescribe the sulphur lotum in the daily dose of fifty centigrammes to one gramme, according to the age of the patient, to be taken once a day, in the morning before breakfast or at breakfast. This dose is continued for five or six months, twenty days every month; then for one year, eighteen months or two years, ten days only a month. It is impossible to imagine a simpler or more practical treatment. The remedy is well supported by the stomach, as a general thing; it produces neither vomiting, diarrhœa, nor constipation. It seldom affects the bowels, and in very rare cases where it produces purgation, a combination of a small quantity of opium with it soon controls its bad effects. The sulphur lotum does not mix readily with water, in consequence of its lightness, and on that account water should be added gradually, drop by drop; or the remedy could be taken with a little confiture or a spoonful of soup.

I have obtained from this treatment what I do not hesitate to call very remarkable results. I should like to give here the details of some cases which are very conclusive. I shall confine myself to two, which seem to me as complete as possible. The cases were those of hereditary asthma, the importance of which no physician can undervalue.

OBS. I.—Mlle. M. G.; her mother had had a great many attacks of asthma, and some of them of very great intensity. Her early infancy was generally healthy, excepting notable susceptibility of the throat and frequent small furfuraceous eruptions on the face and scalp. At the age of 7, she had an acute affection of the bronchia, which forcibly struck my attention. Suddenly a considerable oppression manifested itself, with a very decided laryngo-tracheal wheezing, without, however, great alteration of the voice; no dullness on percussion, and on auscultation the sibilant and mucous rales peculiar to asthma. Every evening the oppression is increased, and the paroxysm becomes more violent. The child cannot breathe, unless she is sitting up in bed. This condition continued for many days, in spite of an active medication, and was terminated by an abundant secretion of a slimy and ropy mucus. Similar attacks recurred every month, six weeks, or two or three months; the most of them commencing by a very painful coryza and insupport-



able sneezing. Generally, they seemed to be reproduced by exposure to cold. I noticed that after a certain time, six or seven months, there remained an habitual oppression in the interval, an oppression so great that going up stairs or walking quickly were extremely painful.

As the paroxysms increased in numbers, so they gained in intensity, and each succeeding one became a new source of anxiety for the family, which I have had difficulty in allaying. A pneumonia complicated this, and a very energetic treatment became necessary—digitalis in a large dose, kermes, also in a large dose, and lastly numerous flying blisters. The pneumonia is completely cured, not without much difficulty, but with its cessation the paroxysms of asthma are not arrested. An attack of asthma took place three months after the pneumonia, followed very soon by other attacks equally intense and frequent as before, and an habitual oppression between these attacks, which did not exist at first. M. Louis was consulted at Paris, and diagnosed, as I had done, a pulmonary emphysema, and which I had seen developed consecutively to the paroxysms of asthma.

All treatment failing, I advised her to try for a season the waters of Mount Dor. The child was carried there; she was examined by the worthy and able Dr. Bertrand, who discovered the existence of asthma, and made her follow the thermal medication with the greatest care. The water of Mount Dor was also taken at home for some months after the child was brought back to Tours. The water of Mount Dor has been incontestably the most efficacious of all the remedies employed. The paroxysms ceased entirely for some months, the oppression of breathing disappeared, and the return to health was nearly perfect. But very soon a new attack came on, and it paved the way for fresh paroxysms of great intensity. It was then that the mother of the child spoke to me of the use of the flowers of sulphur, a remedy which I had already spoken to her about, and which had been recommended to her by a person, himself cured of this cruel disease.

The medication was immediately commenced, about two and a half years ago. For one month, the child, then about 11 years of age, took every morning a dose of fifty centigrammes. Then she stopped for fifteen days. She takes it again for one month, in the same way and dose, and stops fifteen days. Takes it a month, then stops one month. She has taken it regularly, although from time to time many circumstances have interrupted the use of it, such as the indisposition of the child or relations, and many journeys.

Now this is what took place, and appeared to me to be very remarkable, and to which I would most particularly call the attention of practitioners. There cannot be said to have been really a single paroxysm of asthma from the first day of treatment, neither has the child the least habitual oppression. She goes up

a long flight of stairs without difficulty; she runs and walks rapidly; and, lastly, an important point, she has had many colds, and even violent ones, without the recurrence of asthma, oppression, wheezing or any râles, peculiar to asthma. She does not look like the child she was.

Here is, if I am not mistaken, a singularly conclusive fact. Let us give a synopsis of it in a few words.

An hereditary asthma, repeated attacks of which produced pulmonary emphysema; all treatment, including residence at Mount Dor, perfectly ineffectual; the asthma continues in its most perfect and incontestable form. The administration of sulphur sublimatum et lotum was commenced, and for two years and a half not a single attack occurred; the emphysema disappeared with the causes which produced it. The child takes cold with impunity, as far as the asthma is concerned.

Persons may explain this, as they will; but it is, if I am not mistaken, a singularly significant fact.

The following observation seems to me not the less conclusive.

OBS. II.—M<sup>me</sup> X., aged 38; father asthmatic; childhood generally good (as far as disease was concerned); never was the cause of anxiety about her chest. She took cold pretty easily, but the colds were never of great intensity or persistence. Never had pleurisy, pneumonia, or hæmoptysis. She had a long time, on her scalp, a furfuraceous eruption which I judged, from the description of it, to have been pityriasis. The patient told me that about five years ago, when she had a cold in the head, she was taken with an attack of difficult respiration. The disease made its appearance in the middle of the night, the rest of which she passed in a sitting posture, and she was perfectly unable to lie down. All sorts of musical sounds, she told me, were heard in the chest. The physician called, announced to her that she had a violent paroxysm of asthma. He prescribed a potion, strong mustard foot bath, and made her smoke cigars of datura stramonium. From this period the attacks were repeated from time to time for some days; during the hot weather, the patient rarely went over six weeks without having an attack; in the winter she had only one or two. In the intervals of the attacks, her general health was good, and the respiration was normal, excepting that she occasionally experienced a little difficulty in going up stairs or walking fast. At every new attack, the same treatment, mustard, &c., were prescribed. The employment of all these means produced a certain result, but a very insufficient one.

At this time I was consulted, about the middle of January, 1859. I examined the patient, and I observed the perfect integrity of the pulmonary organs. No abnormal sound, either on auscultation or percussion, except, perhaps, a little emphysema. I say, perhaps, for the symptom on which I founded this opinion, was not perceived at the following auscultation. Nothing the matter with the



heart. I prescribed fifty centigrammes of sulphur, twenty days in each month, to be taken in the morning; continue this treatment even during the paroxysms, if any should take place; and also to take during the paroxysms, for three consecutive days, tinct. jalap. comp. in dose sufficient to produce a purgative effect. This is the result.

During the winter of 1859, no paroxysm. During the whole of the year 1859, only a very light one of three days in June, and a still lighter one of two nights and one day in August. The two attacks were so feeble, that the patient has not kept her chamber or called her physician, and did not think it necessary to use the purgative medicine I prescribed.

From that time, during the winter of 1859-60, and summer of 1860, not a single one. The patient had a cold in September, 1860, without oppression or any of the characters of asthma. During the whole of the very rainy summer of 1860, and the winter, which has been so bad up to the present time, she has not had the slightest attack. The use of the sulphur has been continued with the greatest regularity. It is really impossible not to be struck by the effect of treatment in this case.

I am certainly disposed, probably more than most physicians, to attribute a great share to nature in the success of our therapeutics. But here, the effect of the remedy is too distinctly appreciable not to admit it.

Let us resume, then, in saying that sulphur, properly and for a long time administered, constitutes an excellent preventive of asthma.

Should the same treatment be instituted when a paroxysm is present? I cannot say that it should be; I do not know. But I am indebted to the kindness of my colleague, M. Brévault de Loches, for the knowledge of a case; the patient being a man past middle life, in which a paroxysm has been quickly arrested by this valuable remedy. My attention will be directed to this point. I shall observe it closely, and if the attention of the profession should be turned to it, the question will be very soon settled.

There are, however, cases in which sulphur has entirely failed, without usefully modifying the asthma, or at least without diminishing the frequency of the attacks. I prescribed it in the same way and dose, without obtaining any result. I have assimilated these facts with those which take place in the dartrous affection of the cutaneous system. I have seen cutaneous affections a great many times resist the ordinary treatment, and require the employment of other remedies.

On reflection, I thought, if these asthmas are obstinate in the same manner as are those persistent dartrous affections of the skin, I will combat them in the same way, by application of a blister kept open for a long time, and the internal use of arsenic.

Why a blister? I well know that the action of this has been

contested. I have not forgotten the discussion at the Academy on this subject. But there is one, whose authority is greater still; and that one very little addicted to talking, but very practical—the almost entire body of our confrères, who do not hesitate to apply a permanent blister. I have done so, and found the advantage of it.

As to the choice of preparations of arsenic, I prefer Fowler's solution. It is easy to administer by drops, and its effects are more certain than Asiatic pills. The following is my method of administering it. For twenty days every month, the patient to make use of the liquor, at first in the dose of two drops morning and evening, increasing the dose gradually to six drops morning and evening. Tolerance is established pretty well and quickly, generally, without the necessity of facilitating it by the addition of any other medicaments. After three months, instead of intermitting it for only ten days, I leave it off for one month, and even in the course of treatment if any painful symptom manifests itself by its topical action on the stomach.

The treatment thus managed gave me unhopd-for results in two cases, which I shall never forget; and a less complete result in another, in which I did not at first suspect the existence of asthma, in consequence of its being masked by the predominant catarrhal elements of the disease. I recommend it, then, to the attention of practitioners, being very firmly convinced that it is a powerful remedy against asthmas the most inveterate and rebellious to all kinds of treatment.

Is this saying that asthma is a disease which can be always cured? I most certainly do not mean this, nor do I think that treatment in any disease enjoys the privilege of curing every case that occurs. All that I have wished to prove in this article, are the following propositions:—

1st, Asthma is only a manifestation of the herpetic diathesis in the respiratory passages.

2d, In ordinary cases, the use of sulphur sublimatum constitutes an energetic preventive treatment.

3d, In graver and more inveterate cases, and particularly those obstinate to the sulphur treatment, the arsenical preparations are excellent prophylactics.

Let practitioners on their part observe and experiment, but let them do so in cases of true and legitimate asthma, and not in those of dyspnœa associated with an organic affection of the heart, large vessels or lungs. I hope their researches will confirm the views both of pathology and therapeutics which I have propounded in this memoir.

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NOTE BY THE TRANSLATOR.—The symptoms of what Marshall Hall calls "hay asthma," or "asthma æstivum," are analogous to what Dr. Duclos considers to be eczema of the bronchia, coryza, affecting the conjunctiva of eyes, the nasal mucous membrane and bronchia, relieved by sea air and aggravated by



warm weather. Ordinary remedies, he says, fail in the treatment of this. The pathology of it, or its identity with cutaneous affections, appears not to be suspected by him.

Is not the affection known by the name of "rose cold," and not uncommon in New England, and so distressing and pertinacious, an eruption in the bronchia? May not the curative means, so highly extolled by Dr. Duclos, be appropriately adopted in these cases?

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#### TRIAL FOR ALLEGED MAL-PRACTICE.

[THE following interesting account of a trial for alleged mal-practice is from the *Cortland (N. Y.) Gazette* of the 4th inst.—EDS.]

A very important suit was tried at the last Circuit Court held in this village last week—Judge Campbell presiding. It was the case of Ansell Grinnell against Dr. Lewis Riggs. The action was brought to recover damages for the alleged mal-practice of the defendant, as a surgeon, in the treatment of the broken arm of the plaintiff. In June, 1858, the plaintiff, who resides in Spafford, in the County of Onondaga, was travelling with his team along the road leading from Homer to Cortland, and as he approached the railway crossing, a train was passing, his team became unmanageable, and he was thrown out, and came in violent collision with the locomotive, whereby his left arm was broken just above the elbow.

He was taken to the house of Henry Brockway, near by, and there the defendant set the arm, and attended upon its treatment, for about four weeks.

Up to the expiration of that time, it seemed to be doing well. Union of the fractured parts was apparently in progress. The plaintiff was able to leave the house and walk about. He was desirous of returning to his residence in Spafford, and there to be attended by his family physician, Dr. Morrill.

The defendant introduced evidence tending to show that he remonstrated with the plaintiff against his going home at that time; that it would hazard the safety of his arm, and that he had better remain until it was more firmly united. Notwithstanding this advice, the plaintiff performed the journey home. His arm was afterwards treated by Dr. Morrill, of Spafford. In the succeeding month of August, it was ascertained that the bones were not united.

Evidence was given tending to show that after the plaintiff had returned to Spafford, and after the defendant had ceased to attend upon the arm, it was dislocated by an imprudent twisting of the fore-arm, and every subsequent effort at re-union failed.

The defendant introduced upon the trial several of the most eminent and experienced surgeons in this section of the country, and proved by them that his treatment of the arm was in accordance with the directions of standard authors, and the most thoroughly approved practice.

The trial occupied four days. The case having been ably summed up by the council for the respective parties, his Honor, Judge Campbell, delivered the following charge to the jury:—

“There is nothing peculiar in the obligations which rest upon the physician and surgeon in the performance of the professional duties which they are called upon to discharge. Those same obligations rest upon the lawyer, upon the mechanic, and indeed, upon any one who, for compensation, undertakes to render a service or to perform labor for another. As the physician and surgeon deal directly with the human body, and thus in a measure hold, as it were, the issues of life and of death, it is not only reasonable and right, but it is natural, that their conduct and treatment of those entrusted to their care should be observed and noted with watchful anxiety. And thus it is that while the obligations which the law imposes upon them, are no more severe than upon other professions and pursuits, yet, for the reasons mentioned, those obligations are more frequently sought to be enforced in courts of justice.

“The obligations of the surgeon do not come up to a warranty of a cure without a special contract to that effect. His implied undertaking is that he possesses ordinary medical learning and skill, such as the body of the profession possesses in the region of country where he lives, and that he will exercise that skill with care and diligence; that he will adopt approved modes of practice and treatment, and, in short, will exert his best ability to effect a speedy and thorough cure. If he has come up to these requirements, then the surgeon has done his duty—has discharged his obligations; and if he has acted with fidelity and honesty, he is not responsible for the result, unless by an express agreement undertaken to effect a cure.

“When the physician and surgeon adopt one approved mode of practice or treatment, such as is advised and recommended by men eminent in the profession, they are not to be held responsible for not adopting another practice or treatment which other eminent men advise and recommend, even though the jury should think that the practice and treatment which was not followed, would have been the best under the circumstances of the case. In other words, the physician and surgeon is not an *insurer*, and is not responsible for an error of judgment where he follows one approved mode of treatment instead of another, also approved.

“Applying, then, these principles to the case on trial, the first question is, did the defendant, when called on to treat the fractured arm of the plaintiff, agree, by special undertaking, that he would make him a sound limb? In other words, did he warrant a perfect cure, in three or four weeks, as claimed by the plaintiff? If he did so warrant, then it is quite clear that such warranty has been broken, and the defendant is liable.

“If there was no warranty—if the defendant's obligations are



such only as the law imposed upon him when he undertook the treatment of the case, then, did he bring to that treatment the ordinary learning and skill of his profession, and did he apply that skill and learning with care and diligence, and did he adopt an approved mode of treatment; following the case with fidelity and honesty of purpose, up to the fourth of July, 1858, or up to the time when he was discharged from further attendance? If so, then the defendant did his whole duty, and is not to be held liable to the plaintiff for damages in this action.

"From these general propositions and statements of the law of the case, you will see that the verdict which you will give must depend, in a great measure, if not entirely, upon the credit which you shall give to the plaintiff and his witnesses and to the defendant and his witnesses.

"Coming, then, to the treatment of the plaintiff, while under the defendant's care at Brockway's, the evidence on the part of the defendant, as given by eminent professional men, tends to show that that treatment, so far as splints, bandages and daily dressings are concerned, was correct. All the witnesses, however, as I understand them, agree that if there was a continued and daily pulling of the arm, reaching down to the time when the plaintiff left Brockway's on the 3d of July, then such pulling and extension would tend to keep the bones from uniting, and would be unskilful treatment and bad practice. Now, how was the fact? The plaintiff and his witnesses give evidence tending to show such pulling and extension; and, on the other hand, the defendant and his witnesses give evidence to the effect that the pulling and extension ceased after the first few days, and that no injury arose from that treatment. Much evidence has also been given on the question whether at the time the plaintiff left Brockway's, or up to the 4th of July, the healing or union process had been commenced, and whether, up to that time, there was any reason to apprehend that a union would not be effected.

"You must examine and weigh the evidence and determine the case according to your best judgments. You should do so without favor, rendering equal and exact justice. If the defendant has neglected his duty, and by and through his fault the plaintiff has lost the use of his arm, say so by your verdict. If, on the other hand, he brought to the treatment skill, care and diligence, and followed approved modes of practice, and without his fault the bones have not joined together, then it was the misfortune, or it may be the fault of the plaintiff, and your verdict should be for the defendant."

The jury, after an absence of about half an hour, rendered a verdict for the defendant. The result of this trial is a noble vindication of the venerable Dr. Riggs, as a surgeon. His bearing throughout, showed not only his eminence in his profession, but his integrity as a man.

## A CASE OF OSSIFICATION OF THE MUSCLES.

BY WILLIAM SKINNER, M.B., LOND., &amp;C., OF MANCHESTER, ENG.

THIS singular case is that of a boy, 13 years old, the second of eight children of healthy parents. He was quite healthy until about six years ago, when a swelling was noticed at the back of his neck, without any known cause. "This disappeared in about a week, another being observed behind the right shoulder. Three weeks later the arms gradually became so stiff that for about three months they were firmly fixed, and the boy was obliged to be fed. He, however, somewhat improved in this respect, and for some time past has been able to feed himself, although with much difficulty. From that time to the present, various lumps have formed in different parts of the body, these being principally about the spine and chest; and whenever the boy receives a blow it is followed by a similar swelling. Their appearance is preceded by pain, tenderness, and slight feverishness.

"The condition of the boy at the present time is as follows:—He stoops somewhat; the shoulders are contracted; there is no motion in the right joint, and very little in the left; the arms cannot be extended, and are in a semi-flexed position, crossing the abdomen. The chest is narrow, very much flattened on either side, at the junction of the ribs with their cartilages, and these somewhat nodulated. There is no movement of the chest with respiration. The abdomen and lower extremities are well developed, the latter straight, without signs of rickets. There is no movement in the spine, and the scapulæ are fixed; the buttocks and lower extremities present nothing abnormal. On manipulation, a number of small projections are felt over the ribs. The right pectoral muscles are completely fixed, and converted into a hard, bony substance. The lower edge of the greater can be traced from a nodule below the right nipple, crossing the axilla, forming a hard and sharp ridge, which is continued into the biceps as far as its insertion into the radius; a number of little bony nodules may be felt along its course, and a long irregular splinter of bone behind it. The muscles of the forearm do not seem to be affected. On the left side there is much the same condition of things as on the right, except that the muscles of the forearm are here beginning to be more or less fixed, and there exists a long, sharp, bony ridge from the outer condyle to about two thirds of the length of the forearm.

"Posteriorly, on the left side of the neck, and apparently in the trapezius immediately after its origin from the occiput, is a projection of hard, bony substance, about the size and shape of a pigeon's egg. Lower down, between the angle of the scapula and the spine, is a large, hard, irregular mass. In the dorsal region, at about the tenth and eleventh vertebræ, where the trapezius takes its rise, and apparently formed in the angle of this muscle



of the left side, is another hard and somewhat movable mass. It is angular in shape, and extends upward on the side of the spine about one and a half inches, and outward and upward, in the lower fold of the muscle, about one inch. Moreover, in tracing the lower edge of this muscle to its attachment to the scapula some hardness is felt, and here and there sharp spiculæ of bone-like matter. On the right side, about two inches below the lower angle of the scapula, is another hard and irregular projection, about the size of a large egg, the last which has made its appearance; apparently it is incorporated in the lower edge of the latissimus dorsi. In the lumbar region, on each side, hard, bony plates occupy both spaces. The buttocks and lower extremities are quite free from disease, excepting one small nodule, about the size of a common nut, situated over the right os calcis, at the insertion of the tendo Achillis."

This boy exhibited no other structural or functional abnormality. He had taken iodide of potassium, but without any beneficial effect.

"Examples of this peculiar disease may be found recorded by Mr. C. Hawkins in the *Medical Gazette*, 1843 and 1844; by Dr. Rogers in vol. xiii. of the *American Journal of the Med. Sciences*; by Dr. Wilkinson in the *Medical Gazette* for 1846; by Dr. Testelin in the *Gazette Médicale de Paris* for 1839. In the museum of the Royal College of Surgeons of England there is a fine specimen of the disease, the description of which is given in the *Pathological Catalogue*, vol. v., p. 138, No. 3367."—*Medical Times and Gazette*, April 20, 1861.

## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JULY 18, 1861.

THE following letter from Dr. MARTIN contains interesting information with regard to the appearance of variolous disease among the troops at Fortress Monroe. Its statements fully confirm the impression which we expressed in our editorial of the 4th inst., that the newspapers were making a great deal out of what was, in fact, not a very serious matter. We print the letter as it is written, reserving to ourselves the privilege of adding a few comments at its conclusion.

CAMP BUTLER, NEWPORT'S NEWS, DEPT. OF VIRGINIA, }  
July 10th, 1861.

Messrs. Editors,—I notice in the number of your JOURNAL of July 4th (received yesterday), an editorial in regard to the vaccination of the troops from Massachusetts. The article referred to deals in such phrases as "We certainly THINK, so far as we are acquainted with facts," &c.; "We have no reason to doubt," and "We have little doubt," &c. &c. As there is no internal evidence that the editorial alluded to

was written with any authority or foundation beyond that beautiful implicit faith that every true Bostonian seems to have, that everything is done in the very best possible way—because it is done in Boston, I do not see fit to reply further than to state that at the time when I offered, in a letter to Governor Andrew, to vaccinate all the recruits who thenceforward should leave Massachusetts, gratuitously, supplying the lymph for that purpose on the same terms, the troops were not being nor had they been properly protected, by vaccination even, much less by re-vaccination. To a certain limited extent *vaccination* had been done, but with no method, or anything even in a remote degree approaching thoroughness; re-vaccination not at all. What has been done since, what is now being done, I have nothing to do with. If every man recruited in Massachusetts is now protected from smallpox and varioloid, I shall rejoice exceedingly to know it, and especially so from a feeling that to a humble and limited degree I have had something to do with the attainment of the gratifying result. Allow me to suggest that the rejection of a recruit who does “not present satisfactory evidence of having been *vaccinated*,” seems remarkable, intimating, if such has been the fact, a paucity of the *materiel* requisite to the performance of that trivial operation, and the expression of the idea (which is inferred) that a *single* vaccination, however remotely performed, constitutes a full protection from variolous disease, is evidence of a very striking want of information as to the vast weight of *modern* authority on that important subject.

About the “appointing a special medical officer over the heads” of others, I know nothing. I asked no such appointment. Of the infinite necessity of a general inspection of all the troops in the United States service, with a view to methodical vaccination, the duty to be done by some one or more persons *not* connected with the regiments, I know a good deal, and on a future occasion, in another place, shall perhaps have a good deal to say.

The reason why I did not give you any account of the varioloid, &c., in my letter, was that said letter was written two or three days after my arrival at Fortress Monroe, and before I knew anything definitely myself of the matter. Cases of contagious disease are rigidly excluded from the General Hospital, from which I hardly stirred during that time. As to giving you a “full report of the number of cases,” &c. &c., I cannot do it—first, because I am not yet in possession of all the facts requisite for a “full report;” and secondly, because, when I become so, such a report must, in all propriety, be *first* made to the commanding officer of this department, and not through the columns of a professional Journal. I have no objection, however, to giving you some facts which I have ascertained by actual observation. I came first to Camp Butler, as that is the encampment most distant from the Fortress, intending thereafter to visit the camp at Hampton Bridge, and finally visit and inspect the troops at the Fortress. I found at Newport’s News five regiments in camp—the Seventh New York Volunteers, the Fourth N. Y. Volunteers (Scott Life Guard), the First Vermont Volunteers, the Fourth Massachusetts (replaced before my inspection reached them by the First N. Y. regiment—Allen’s), and the Ninth N. Y. (Hawkins’s) Zouaves. Two of these regiments (First and Ninth N. Y.), were thoroughly protected before leaving home; the first in consequence of the appearance of varioloid among the men, the second in accordance with an order to that effect from



Surgeon General Vanderpoel. The First Vermont is a three months regiment, and was not vaccinated before coming here, but on the appearance of varioloid was as thoroughly protected by Dr. Sanborn (surgeon of the regiment and post-surgeon of this encampment) as possible with the limited supply of lymph at his command. Of this regiment I vaccinated a few members, but in view of the facts that its term of service has very nearly expired, and that its camp is very remote from that part of the post where the smallpox first appeared and to which it has hitherto been limited, I made no formal inspection of it. The entire matter was left to my judgment, and I did not consider such inspection necessary. The remaining two regiments were thoroughly inspected by me. An exact register was kept of all essential facts relating to each individual, and of the results of vaccination when performed. In both these regiments a large number were found who had never been vaccinated at all, several hundred in whom it had not been done since infancy, and a great many where the evidences of previous proper protection were not satisfactory.

It may be instructive for the gentlemen who think their method of entire reliance on the regimental surgeons so perfect, to be informed that in one of the two last regiments, the surgeon thereof, in answer to a requisition from the commanding officer, made reply that his regiment was MOST THOROUGHLY PROTECTED. I found, on inspection, that *two* of his men had been vaccinated since enlistment (one with effect, the other without); that fifty-one of them had *never* been vaccinated at all; and of the remainder, over four hundred not since infancy. As to the varioloid, I would say that five cases thereof have shown themselves among the men of that regiment, to which the disease has hitherto been confined, and to which it is *now* probable it will remain limited, and a sixth (of severe variola) in an unvaccinated negro servant living in the same camp. As to the fatality, I am happy to say there has been none. The hot weather, and the facts that the disease appeared first at the extreme left of the encampment, and that the cases were at once carefully isolated, account sufficiently for the limited degree to which the contagion has extended. Any person familiar with variola, need hardly be told what the result would probably have been, had it shown itself in cold weather, in two such regiments lying in contiguous camps.

It is not at present necessary for me to say more of the existence of variolous disease here, which would seem to be shrewdly doubted by the writer of the editorial alluded to. And I think enough also has been said to vindicate the wisdom and foresight of Gen. Butler's order for a thorough inspection of his command, with a view to preventing the spread of the disease. I am now preparing, with the assistance of a secretary, an elaborate report to Gen. Butler, which, embracing statistical facts, arrived at in the course of this humble commencement of, I trust, a methodical system of vaccination, not only of the army, but of the people of the United States, must, however imperfect, possess interest to the profession, and will therefore be printed.

HENRY A. MARTIN.

In the first place we would remark, with regard to our former editorial, that it was written with a full knowledge of the facts, and was called out by what we considered, and still consider, the undeserved severity of the comments of the *New York Medical Times*, and the

daily press, on the alleged neglect of the medical authorities of Massachusetts. The natural inference from these remarks, copied widely in the daily papers, was, that the Massachusetts troops were at that time suffering from a loathsome disease, through the culpable negligence of those who might have prevented it, and that in consequence of this fact, a special officer was needed, and had been despatched to Virginia to repair the neglect, by instituting a thorough vaccination. It is quite interesting to see, therefore, that of the *six* cases of variolous disease, all that had occurred, according to Dr. Martin, up to the date of his letter, *not one had appeared in a Massachusetts regiment!* Five of them were in one of the New York regiments (will the New York *Medical Times* please note this?), and the sixth was that of an un-vaccinated negro, probably one of the *contraband*. Truly, this does not make out a very urgent need for extra medical services.

With regard to the 1st Vermont regiment, it appears that Dr. Martin, in view of the fact that it is a three months regiment, "did not consider an inspection necessary"! Well may we pause with astonishment. Would any one believe that all the regiments from Massachusetts at the time in and about Fort Monroe were also three months men? and men, too, whose term of service would expire before that of the Vermonters? Yet such is the fact, and these are the soldiers who were so shamefully neglected by our State authorities! These were the men, whose regimental surgeons were not competent to inspect, or had not the means of vaccinating them! These were the men for whose special vaccination Dr. Martin was summoned to Fortress Monroe!

We have not one word to say against the importance of universal re-vaccination in the army. On the contrary, we think it of immense importance. As to whom it shall be done by, it is not important now to inquire. We hope it will be done, and that thoroughly. But let it not be said that smallpox has made its appearance among the troops, as a consequence of the neglect of its performance on the part of our State, for this is simply not true.

We cannot refrain from recurring to the fact that Dr. Martin's offer to vaccinate the Massachusetts troops was made *after all the three months troops had left*. The troops subsequently enlisted were, of course, under the orders of the United States government, after they were mustered into service, and Massachusetts had nothing more to do with them. The offer of gratuitous services was accompanied by commendable expressions of patriotic motives. Dr. Martin was asked, however, if he would furnish vaccine to be used for the benefit of the troops in Boston harbor, but he peremptorily refused to supply it!

We are also authorized to state, that an order was issued by the Commander in Chief, in accordance with a vote of the Medical Commission passed on the 2d of May, that all soldiers enlisted and accepted as volunteers be vaccinated, unless they can procure evidence of having been vaccinated within five years; and we have reason to believe this order has been faithfully carried out. As to Dr. Martin's inferences from our remark that orders were given that unvaccinated persons offering for recruits should be rejected, we would say, in explanation, that of course such a rejection was to be only temporary. Recruiting was going on at many different points, and the officers



were directed in all such instances to give proper notice at headquarters, and vaccine would be supplied immediately.

On the whole, then, we see no reason to retract the opinion expressed by us two weeks since, that in this matter "it seems as if somebody had succeeded in creating a good deal of blaze and smoke, out of very little straw."

The second letter from Dr. Martin, written from Fortress Monroe, we have not space to print the present week.

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NEW ANÆSTHETICS—THEORY OF THEIR ACTION.—The following letter is of interest at the present time, in connection with the new anæsthetic announced in our last.

*Messrs. Editors,*—Substitutes for ether, as anæsthetic agents, are frequently proposed, and some of them have been practically introduced, with some success. None, however, surpass ether in the two most important qualities of efficiency and safety, and there can be no doubt that with respect to safety, ether is far preferable to any and all anæsthetics thus far discovered.

It may prove interesting to the profession, to inquire into the mode of action of the class of bodies known to produce anæsthesia, when inhaled. This subject has been very carefully studied by me from the outset of anæsthetic practice, and with a view to the discovery of some general law.

The first impression among physicians was that the anæsthetic state was merely one of temporary intoxication.

Secondly, the theory of high excitement, followed by corresponding collapse, accounted for the phenomena. Dr. John C. Warren took, at one time, this view of the matter, and spoke of etherization as "devouring the sensibility by high stimulation, and hence a corresponding nervous depression" which was the anæsthetic state. Others have supposed that etherization produced a partial asphyxia; hence the expression early made use of by some of our surgeons, that there was "little difference between hanging, drowning and etherizing."

It has also been alleged that ether absorbed into the sanguineous circulation affects directly the nervous filaments, either at their origin in the medulla spinalis, or in their distributed extremities, or in both these parts. In support of this allegation, it was cited that the direct application of ether to an exposed nerve *destroyed* its sensibility. By the italization of that word, I call attention to the difference between the anæsthetic state of temporary suspension of sensibility, and the destruction of it; for the nerve acted upon directly by ether, does not recover its powers, but is permanently paralyzed.

Another state of the circulation has been observed, which it was hoped would give some clue to the action of anæsthetic agents,—namely, that of slackening, and even temporarily wholly suspending the circulation of blood in the capillary or extreme vessels. It was supposed that by thus cutting off a supply of circulating blood-stimulus to the sentient extremities of the nerves, sensation was temporarily suspended. The commencement of insensibility in the remote extremities, the feet, legs and hands, seems to indicate that sensation was suspended at those points first.

The French Physiologists, Flourens and Longet, are of opinion that the effects of anæsthetics commence, and primarily act on the great nervous centres, the medulla spinalis and medulla oblongata; and that

if the full effect reaches the bulb of the medulla death will take place from total suspension of all the vital functions of the body.

A more chemical explanation of the action of anæsthetics, is that they all abstract oxygen from the blood, and hence reduce its peculiar stimulating powers on the nerves, and that some of them leave poisonous products, while those left by others are innocuous. Thus, as we have formerly stated, chloroform or the ter-chloride of formyl abstracts three equivalents of oxygen from the blood, but, at the same time, unfortunately it deposits, in exchange for the oxygen, three equivalents of chlorine.

Bi-sulphide of carbon, one of the most terrible anæsthetics ever proposed, the dangerous effects of which I have experienced, and have warned the public about seasonably, acts as a powerful de-oxidizer of the blood, both the carbon and the sulphur abstracting oxygen, the first producing carbonic oxide or carbonic acid, while the latter forms sulphurous acid. Carbonic oxide and sulphurous acid are poisons, as is also chlorine, before mentioned.

All the acidiferous ethers when decomposed, as they are, in the organs of respiration and circulation, leave their acids in combination with the blood; hence, nitrous and nitric ether are known to destroy life, and hydro-chloric ether and chloride of hydro-carbon undoubtedly act in the same way, and injure the quality of the blood. Acetic ether is not objectionable, since an organic acid is easily decomposed in the processes of respiration, and is removed in the form of carbonic acid and vapor of water, usual products of normal respiration.

Sulphuric ether, as it is improperly called, since it does not contain any sulphuric acid, is a pure hydro-carbon, with one equivalent of oxygen= $C_4 H_5 O$ . When decomposed by the action of the blood, it may be converted into aldehyde, acetic acid, and lastly into carbonic acid and water, no fixed product remaining in the blood, but all able to be removed by respiratory action. The odor of the breath of a patient who has been etherized, shows that there are exhaled the oxidized products of the ether, and it is known by analysis that a much larger proportion of carbonic acid is exhaled from the lungs during the etherized state, than in the normal condition of the system.

Without finally adopting any theory of the chemical and physiological action of anæsthetics generally, we may, perhaps, be allowed to call attention to a general law, namely, that all very volatile hydro-carbons act as anæsthetics like the others. Thus, it has long been known that benzine, benzole, oil of turpentine, naphtha, when inhaled, will all produce the anæsthetic state. The highly volatile oils of coal tar, likewise, possess anæsthetic properties, and one which has recently been tested in surgical practice, known as keroselene, a highly volatile naphtha, seems to be the least offensive of them. It is evidently a very pure hydro-carbon, analogous to highly rectified naphtha, and does not contain any oxygen, as is proved by its property of preserving potassium from oxidation, when it is immersed in it. The first samples of keroselene which I tested, two years ago, proved quite irritating to the organs of respiration, but I have learned recently that a purer and more volatile product has been made at Mr. Downer's works, though I have had no opportunity of testing it practically.

It is obvious that there are two or more volatile oils in the keroselene of commerce, and they are separable by graduated distillation.



Some care, therefore, is requisite in the preparation of an uniform product; one which may be properly the subject of experiments by inhalation. I would observe that no analysis has yet been made of the keroselene oils.

CHARLES T. JACKSON, M.D.

Dr. G. B. BALCH, of North Lawrence, N. Y., relates, in the *Amer. Jour. of Med. Sciences* for July, a case of gun-shot wound, in which a leaden ball remained in the walls of the heart for twenty years. The subject of the accident was shot in 1840, when he was 14 years old, the ball entering "the right shoulder, through the upper border of the trapezius muscle, about two inches from the acromion process." Little hæmorrhage or local disturbance took place, and in six weeks the boy was at work. In 1845 he had pneumonia of the right lung, and in 1860 pneumonia again, with increased action of the heart, and dyspnœa, which ended fatally, the right arm and hand becoming purple and cold two days before death.

On post-mortem examination, the right internal jugular was found enlarged, and the right external jugular entirely closed. In the right subclavian artery, at the thyroid axis, was a large ossific deposit. The heart was found very soft and flabby, two or three times its natural size, had undergone fatty degeneration, and a hard lump was felt in the lower part. This lump proved to be in the wall of the right ventricle, with no scar outside, and on cutting down upon it, the bullet was found imbedded inside. The pericardium was very adherent, especially on the right side of the heart.

THE following letter having been shown us by our friend Dr. LUTHER PARKS, Jr., we asked it for publication, for the benefit of those who contemplate taking a medical commission in the service of the United States.

At the time Major Cobb began to organize his battery of Light Artillery, Dr. Parks accepted an appointment as Surgeon from that gentleman, with the desire and intention of engaging in active service for a few months, relying upon what he considered good authority, that he could resign his commission whenever his convenience should require. He was therefore surprised to find, a short time since, that he was expected to sign a paper contracting with the State of Massachusetts to enter the service of the United States for the term of three years, or until otherwise discharged. Dr. P. at once consulted the United States mustering officer in this vicinity, Lieut. Amory, who gave him the following information, viz., that staff and commissioned officers, as well as privates, were expected to sign the abovementioned paper; that those signing it were absolved from all obligations imposed by it on receiving a discharge from the Federal Government; that an officer could resign his commission, and his resignation would be accepted, at any time; but, that in time of war, it was not considered creditable for any officer to resign except upon some important and unforeseen emergency. Dr. Parks, therefore, being unable to be absent from home for a longer period than a few months, found himself obliged to retire from his post in a corps in which he had become much interested, and with whose members he had sustained especially pleasant relations.

We are happy to say that Dr. Parks has obtained a very able substitute in Dr. David P. Smith, of Springfield.

Boston, June 25th, 1861.

SIR,—Having been applied to by Dr. Luther Parks, Jr., for information in regard to the obligation of officers tendering their services to the General Government, under the call for three years volunteers, I stated to him that in my opinion—which I think is in accordance with the views of the General Government—no officer should make offer of his services, unless, at the time, he is willing and able to remain in service for the full length of time specified. I have accordingly advised Dr. Parks, on his informing me that circumstances would compel his presence at home before the expiration of

the three years term, not to offer his services for a position which could be filled by some one else so situated as to be able to take upon himself the obligation to serve for three years.

Signed by Lieut. AMORY, U. S. Army Mus'ering Officer,  
and addressed to Major COBB, Comm'g Light Artillery.

**BERKSHIRE DISTRICT MEDICAL SOCIETY.**—This Society held its annual meeting at Lenox, on Wednesday, June 26th, when the following officers were unanimously re-elected for the ensuing year, viz.:—*President*, Clarkson T. Collins, M.D., of Great Barrington; *Vice President*, Timothy Childs, M.D., of Pittsfield; *Secretary*, R. Cresson Stiles, M.D., of Pittsfield; *Treasurer*, Abner M. Smith, M.D., of Pittsfield.

Berkshire county is one of the largest in the State, occupying the extreme western portion. Its natural scenery among the mountains has long been a subject of interest to travellers. It contains a medical college, which is well sustained. The district society is composed of members both in and out of the county. Medical men residing in the contiguous portions of other States, find it more convenient to belong to the Berkshire Society, than to those of their own States; hence, the district society contains many more members than are represented in the State society—numbering about seventy. They hold their meetings on the fourth Wednesday in each month, at different parts of the county, but mostly at the medical college in Pittsfield. These monthly gatherings are not only of a highly interesting and instructive character in a scientific way, but are also pleasant in a social manner, as on every occasion a dinner is furnished by some member. The July meeting is to be held in Great Barrington, when the Society will partake of the hospitality of its President, Dr. Collins.

A MEETING of the Censors of the Massachusetts Medical Society for Suffolk District and the Society at large, will be held at the house of Dr. W. E. COALE, in Staniford Street, on Wednesday, 31st inst., at 4 o'clock, P.M.

#### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, July 13th, 1861.

##### DEATHS.

	Males.	Females	Total.
Deaths during the week, . . . . .	44	35	79.
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	38.6	33.7	72.3
Average corrected to increased population, . . . . .	..	..	80.7
Deaths of persons above 90, . . . . .	..	..	..

##### Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
11	12	0	5	0	0	2	0	0

##### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	29.931	Highest point of Thermometer, . . . . .	97.
Highest point of Barometer, . . . . .	30.161	Lowest point of Thermometer, . . . . .	54.10
Lowest point of Barometer, . . . . .	29.702	General direction of Wind, . . . . .	Westerly.
Mean Temperature, . . . . .	77°.1	Am't of Rain (in inches) . . . . .	0.931

**ERRATUM.**—In last week's Journal, page 493, in the table at the bottom of the page, the third ward mentioned should be *Fever* instead of "General."

**PAMPHLETS RECEIVED.**—The *Modus Propagandi of the Human Species*, physiologically explained. By John O'Reilly, M.D., New York.—Annual Report of the New Hampshire Asylum for the Insane.

**DEATHS IN BOSTON** for the week ending Saturday noon, July 13th, 79. Males, 44—Females, 35.—Accidents, 3—apoplexy, 2—disease of the brain, 2—cancer (of the uterus), 1—cholera infantum, 12—cholera morbus, 1—bilious colic, 1—consumption, 11—convulsions, 7—drinking ice water, 1—dropsy, 1—dropsy of the brain, 2—dysentery, 2—scarlet fever, 5—infantile diseases, 2—intemperance, 2—disease of the liver, 1—marasmus, 6—measles, 1—paralysis, 3—peritonitis, 1—premature birth, 2—suicide, 1—sun-stroke, 2—tabes mesenterica, 1—teething, 1—unknown, 5.

Under 5 years of age, 45—between 5 and 20 years, 4—between 20 and 40 years, 11—between 40 and 60 years, 14—above 60 years, 5. Born in the United States, 57—Ireland, 13—other places, 4.



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REVIEW OF THE PROGRESS OF THE MATERIA MEDICA.

BY H. T. CUMMINGS, M.D., PORTLAND, ME.

[Communicated for the Boston Medical and Surgical Journal.]

*To the President and Fellows of the Maine Medical Association.*

THE subject of Materia Medica was committed to the writer for review, a vote taken by the Association requiring the addition of two other gentlemen, members of the Association, as coadjutors. In compliance with this vote, about the last of March and first of April, the writer addressed a letter to J. McKeen, Jr., M.D., of Topsham, and Charles A. Packard, M.D., of Waldoboro', inviting their co-operation. Whether the letters were misdirected, or whether the time was ill chosen, suggesting the thought of a first-of-April *canard*, the writer cannot say; but after waiting six weeks or more, and hearing nothing from either of the above-named gentlemen, it was deemed useless to waste further time in seeking other collaborators, and the business in hand was taken up and carried on—how acceptably to the Association, let the sequel show.

In reviewing the progress of materia medica during the decade which has just gone by, it is worthy of remark that the positive additions to the primary list in our own Pharmacopœia, have been few and far between. We may consider the officinal list as already pretty thoroughly completed, and any new candidate for admission must have superior claims to obtain for it officinal recognition. Viewing the general subject of materia medica under this aspect, we arrive at the conclusion that its progress consists essentially in improvements in the forms under which standard remedies are administered, in the pharmaceutical treatment of drugs and simples, and of a better comprehension of the principles and conditions which obtain in the various processes conducted under the hand and eye of the scientific pharmacist. This may not be assented to by all, but the pharmaceutical stand-point would seem to favor this view of the subject; and being the one

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which the writer, from the nature of his business, is compelled to take, it may not be altogether devoid of interest, instruction and novelty to those who are accustomed to view the subject more exclusively in its therapeutical relations.

But the ten years past have not been altogether barren of new remedies, some of which have already become officinal, and it is to those, and those especially with which the writer has dealt practically, more or less, that your attention is now invited.

Cod-liver oil may be said to have had its day, for it is comparatively little used now, though twelve years ago it was as prominently before the profession as are the hypophosphites at the present day. It is alluded to here, as a reliable source of propylamine, in case the herring pickle should fail, as a source whence to obtain that alkaloid. As the result of an experiment in that direction, the writer took four pints of cod-liver oil, and distilled it with potash and quick lime, obtaining, as the result of the operation, thirty-two ounces of distillate containing a large proportion of pure propylamine. A quantitative experiment gave, as an approximative result, ten grains of sulphate of propylamine to the ounce, equal to five grains of pure anhydrous propylamine, which possesses all the properties of that obtained from the brine of herrings or the ergot of rye. This was the result of an examination made upon a specimen preserved in a cork-stopped bottle, which had been distilled more than a year ago. It is fair to presume that a portion of the alkaloid must have been lost by evaporation, as the bottle had been frequently opened and the cork was not very tight, so that the yield of the crystallized salt from a freshly distilled specimen might be expected to be considerably larger. If propylamine possesses the efficacy ascribed to it in rheumatic affections, the reputation possessed by cod-liver oil in similar affections must be due in great part to that element, which occupies in cod-liver oil the place that glycerine does in many other oils. The most eligible form in which to use it is undoubtedly the chloride, as it is thus rendered fixed, is soluble in water, and its disagreeable odor is thus avoided. Of its taste, the writer cannot speak from experience, as its odor has proved abundantly sufficient for him. A sample of the aqueous solution of propylamine, and also of the sulphate of propylamine, is offered for inspection, both prepared by the writer.

From propylamine, the representative of one class of oils, to glycerine, the representative of another class, the transition is easy, and practically agreeable. Like propylamine, though much longer known, it was at first only a chemical curiosity, to be found solely in extensive chemical cabinets. Some twelve or fourteen years ago, an English aurist employed it in cases of deafness, to soften and otherwise modify the secretions, and to change in some way the action of the secernent glands of the meatus. It was also found to be an excellent ingredient in ointments, and its uses



gradually extended, until some six years ago it came to be recommended as a substitute for cod-liver oil, the nauseous qualities of which rendered it impossible to reconcile sensitive stomachs to its use. But the process for obtaining it was laborious and costly, and the yield very small. The first pound that the writer ever purchased he paid four dollars for, but it was a pure article of high specific gravity, and better than he was able to obtain for several years after. And for years glycerine was offered in the market at a comparatively low price, but contaminated with foetid animal oils, which proved a bar to its use. At length Mr. R. B. Tilghman, of Philadelphia, discovered that the exposure of fat and water to a temperature above 500°, resolved them into hydrated acids and glycerine, and devised an apparatus to effect that division, which it is unnecessary to describe here, and which, once fairly brought into action, soon affected the price of glycerine, reducing it some 75 per cent. Since its price has been reduced so as to bring it within the reach of pharmacutists, we have had much discussion upon its utility, and the range of applications of which it is capable. A few of these will here be noticed.

First, As a substitute for cod-liver oil, for internal use, it has been tested by some of the leading physicians of Portland, who are so favorably impressed by its merits, that their verdict is, that but for its expense, it would be prescribed, to the entire exclusion of cod-liver oil.

Second, As an ingredient in ointments and for an emollient application in poultices, nothing has been found to compare with it. A beautiful ointment, which will well replace the ung. aquæ rosæ, may be made by the following formula:—Take of almond oil expressed, two fluid ounces; spermaceti, six drachms; glycerine, four fluid drachms; otto of roses, otto of bergamot, each two drops. Melt the spermaceti by the aid of a water bath, add the almond oil so gradually as not to recondense any of the spermaceti, remove from the bath, and stir until the mixture concretes on cooling, when the glycerine is to be added and thoroughly incorporated. The ottos are finally to be incorporated, when the ointment is finished. Another very nice emollient application, which may be termed glycerine lotion, may be made as follows:—Take of mucilage of quince seeds, glycerine, each one fluid ounce; orange-flower water, six fluid ounces; mix; make a lotion. The ointment above described has, in the writer's experience, kept perfectly sweet and free from rancidity even under very unfavorable circumstances.

Glycerine lotions have been recommended by Soubeiran, of Paris, as follows:—*Lotion of Morphia*—Take of acetate of morphia, three grains; glycerine, five drachms *troy*; dissolve. *Lotion of Strychnia*—Take of sulphate of strychnia, six grains; glycerine, five drachms *troy*; dissolve the salt in the glycerine, in a porcelain mortar. *Lotion of Veratria*—Take of veratria, fifteen grains; diluted muriatic acid, sufficient; glycerine, five drachms; dissolve

and mix. *Lotion of Atropia*.—Take of atropia, six grains; diluted muriatic acid, sufficient; glycerine, two and a half drachms; dissolve and mix. The reason why diluted muriatic acid is ordered in the last two formulæ, may be found in the fact, that the *salts* of the alkaloid, not the alkaloids themselves, are soluble in glycerine. These lotions are to be applied by friction, according to the various indications, which practitioners will recognize without more particular allusion.

Charles Tilyard, of Baltimore, proposes the following as a substitute for Goulard's cerate, which so speedily grows rancid, and becomes more irritating than soothing to inflamed surfaces. Take of pure glycerine, thirteen and a half fluid ounces; solution of subacetate of lead, two and a half fluid ounces; gum camphor, half a drachm. Triturate the camphor with a few drops of alcohol, add the glycerine, heat in a water bath until the camphor is dissolved; when cool, add the solution of lead, and shake well together. This does not change, is easily washed off with water, and can be reduced to any desired extent either with rose or distilled water. The proportions cited above are for those of Goulard's cerate, substituting the oil and wax by glycerine.

In the third place, glycerine finds an extensive range of application as a solvent for various medicinal substances. Sulphur is soluble in a small proportion, and the alkaline sulphuret very much so. The salts of the alkaloids are freely soluble, while the alkaloids require adjuvants to render them equally so. Tannin is soluble one part in six, and the glycerine employed in the experiments from which these results were obtained, contained about twelve per cent. of water, and was not anhydrous, like much that has been recently furnished in the market. The writer observing a report of the solubility of kino in glycerine, determined to put this to the test. So introducing into an ounce phial two drachms of kino, and filling up with glycerine, the bottle was set in a warm situation for two or three days. At the end of that time, the glycerine had taken up a large proportion of the kino, but the mixture was allowed to stand two or three months longer, when it was strained through linen with pretty strong expression, and the residue weighed. The residue was treated with a half ounce more of glycerine, and again strained. The result was that each ounce fluid of the solution represented eighty grains of kino. This solution is miscible in all proportions with water and alcohol. It is easy at once to see that this must bring into play a very valuable astringent.

The solvent power of glycerine makes it a very valuable excipient in pill masses, as it communicates plasticity to the mass, without, if properly used, increasing the bulk of the pill. More experience is required to enable the writer to speak definitely upon this point, but, as a general rule, from the eighth of a drop up to half a drop to a pill, will be found sufficient. The proportions will



vary according to the materials and their bulk, and the glycerine, if cautiously added, will impart plasticity, without converting the mass into a muddy magma; but the exercise of some discretion is necessary. Its stability at ordinary temperatures confers another advantage, namely, that of keeping pills soft, and readily soluble in the secretions of the stomach; instead of, like syrup and gum, permitting them to dry up as hard as shot.

A word upon the various kinds of glycerine in the market. Some are quoted at a low price, and have no makers' names on the labels. They may be good, but unless they are entirely destitute of offensive odor, and are of a high specific gravity, it is best to be shy of them. In good specimens of glycerine, if there is any odor at all, it is inappreciable by olfactories of ordinary sensitiveness; but bad glycerine is worse than none—if not positively poisonous, it is abominably offensive. Price's glycerine has had the top of the market for a long time, but in Philadelphia there are makers who produce an article in no wise inferior. Messrs. Powers & Weightman put theirs up in packages of seven pounds each, and a young man by the name of Bowers manufactures an article and puts it up in the same style as Price, which will compare most favorably with the English article. It is hardly necessary to mention the Western makers, as their productions rarely if ever find their way into this market.

The hypophosphites now invite our attention. These salts were proposed by Dr. J. F. Churchill, in a Report made to the French Academy of Medicine in July, 1857, as a cure for phthisis, on the ground that they were the most eligible vehicles to supply a deficiency of phosphorus in the circulation and nervous system. We shall only discuss some few of the forms in which they have been offered to the profession for use. These are the neutral salts, crystallized or amorphous, most commonly the latter; simple solutions, saccharine or otherwise; and solutions of a more composite character, containing several bases. Of the comparative merits of these different preparations, therapeutically, the writer cannot undertake to speak; but reasoning *a priori*, the solution would seem to be the most eligible form, whether aqueous or saccharine, simple or composite.

\* \* \* \* \*

The writer, in the few gallons of hypophosphite syrup manufactured by him, has followed the formula of Prof. Procter, of Philadelphia, as modified by Mr. Wm. S. Thompson, of Baltimore. The formula is as follows:—Take of

Hypophosphite of lime,	256 grains
Hypophosphite of soda,	192 "
Hypophosphite of potassa,	128 "
Protosulphate of iron (crystallized),	185 "
Carbonate of soda,	240 "
Hypophosphorous acid (sp. gr. 1.036),	3½ fluid oz.
Sugar,	12 oz.

Dissolve the protosulphate of iron and the carbonate of soda each separately in four fluid ounces of hot water, and mix the solutions. Wash the precipitated carbonate of lime thoroughly with sweetened water, and drain it on a muslin filter. Having placed the salt of lime, soda and potassa in a suitable porcelain dish, add about two fluid ounces of water, and one fluid ounce of hypophosphorous acid; heat the mixture gently, and add the moist proto-carbonate of iron, in small portions, from time to time, alternately with the hypophosphorous acid, until the solution is complete. Add water enough to make the whole measure ten fluid ounces; pour into a bottle containing the sugar, and dissolve by agitation. This syrup contains about five grains of the combined hypophosphites in each fluid drachm, three fourths of a grain of which is the hypophosphite of the protoxide of iron.

\* \* \* \* \*

The hydrocyanate of iron has lately been lauded as a remedy in epilepsy. An ounce bottle of this substance has been submitted to an analysis by Mr. Ferdinand F. Mayer, of New York, the details of which may be found in the *American Journal of Pharmacy*, 1859, September No. The result at which he arrived in the examination of a specimen bearing Tilden & Co.'s label was, that it was a mixture of pure Prussian blue with peroxide of iron and prussiate of potash. The true proto-cyanide of iron is still a chemical desideratum, and so far as the preparation in question is concerned, soluble Prussian blue might as well be used.

The oxalate and nitrate of cerium, and the sulphate and carbonate of nickel, have been introduced into practice on the recommendation of Dr. J. Y. Simpson, of Edinburgh. The writer has nothing special to offer as respects their preparation, but would submit specimens for examination.

The ammonio-ferrie alum has been found, by Dr. Tyler Smith, to be a more powerful astringent than common alum, and not liable to produce the stimulating effect of other salts of iron. This has been used to some extent in Portland, but with what effect the writer has not learned.

Manganese and its preparations, especially the crystallized sulphate and the syrup of the iodide of manganese, have been used more or less during the last ten years.

Citrate of iron and strychnia has also been employed as a tonic. The difference of strychnine strength in different samples, is a source of regret, as some manufacturers employ but one per cent. of strychnine in the salt they prepare, while others double that dose. This is a source of trouble and annoyance, both to the pharmacutists and physicians, which should be obviated in the use of so potent an agent as strychnine.

Santonine, the crystallizable principle of the *artemisia santonica*, or European wormseed, has been employed with good effect against intestinal parasites. Quacks have seized upon it, and Hol-



loway's Worm Confections are supposed to contain it. Edward Parrish, of Philadelphia, puts up Dragees de Santonine, which we may regard as reliable, and also Messrs. Fougere, of New York.

The fluid extract of veratrum viride, which, as prepared by Tilden & Co., of New York, professes to represent Norwood's Original Tincture, has been introduced into practice within the last seven years, and certainly possesses powers which entitle it to the attention of the profession.

We are reminded by the title of the last preparation noticed, of a large and apparently increasing class of preparations known under the title of "Fluid Extracts." The writer can do no better, in criticizing this class of preparations, than to quote from the editorial remarks of Prof. Procter, in the *American Journal of Pharmacy*: "If there is any manufacturing house in the country which owes its success to the countenance of the medical profession, it is Tilden & Co.; though to their own enterprise in bringing their preparations to the notice of physicians this recognition is mainly due; hence none should be more conscientiously careful to keep to the well-defined path of pharmaceutical rectitude in making their products. We wonder that they should be willing to run the risk incurred by engaging in so many petty items, when the regularly recognized preparations of the Pharmacopœia and dispensaries afford them so wide a scope. They have had, and still have, an admirable opportunity to take a firm and unflinching stand in upholding the purity and perfection of pharmaceutical products and manipulations, and on their true assumption of this position will depend their future success."

"It seems now pretty well established, that fluid extracts, as a class, meet the favorable opinion of physicians, and it becomes a matter of grave importance to the medical profession, that some efficient action be taken by the pharmacutists of the United States to adopt a set of formulæ—that is, one for each class—which shall govern the manufacturer, whether he be apothecary, druggist, or manufacturing pharmacist, as regards the proportion of the drug and the menstrua to be used in extraction, and the agent for their preservation. With these points established, it is clear, that any marked differences in these preparations could be readily detected, and their differences would be attributed to inferiority of material or unskilful manipulation."

At the meeting of the American Pharmaceutical Association, in 1859, Prof. Procter made an admirable report on the subject of fluid extracts, which covered the whole ground, leaving little if any room for improvement. All fluid extracts may be referred to one or the other of the classes into which he has divided this school of preparations, and the principles which should govern the treatment of these was succinctly yet clearly laid down, so that no apothecary need be at a loss how to go to work to prepare them. The paper was accompanied with specimens of fluid extracts made

after the Professor's formula, and better ones they were than are ever seen in the market, proving what can be done by a skilful and conscientious pharmacist in the way of manipulation.

A new invention, no less admirable in its way than some other things already named, are the patent epithems devised by Mr. Alfred Markwick, of London, and named the Piline, Spongio-Piline, and Water Dressing, to each of which the inventor adds the adjective "impermeable." These severally consist of a species of felt, differing in each, but all coated on one side with gutta-percha, the object of which is to obviate evaporation. The piline consists of a fine, white woollen felt of homogeneous texture; the spongio-piline of a mixture of sponge and wool; and the water dressing of something not so fine and even as the piline, probably wool before it is completely dressed. They all subserve an excellent purpose, as substitutes for the filthy poultices formerly and at the present time more or less in vogue—after having been used can be washed out and reapplied more than once if necessary—can be saturated with any kind of lotion, and in fact act as vehicles for epidermic medication, which supplies a want long felt by the profession.

The extract of *nux vomica* has been much used of late years as an ingredient in pills, communicating, as it does, tone and contractility to the torpid muscular fibre of the intestines; but possibly some may have met with disappointment in its use. Let one precept remain impressed on your minds whenever you order the extract of *nux vomica*; call for the *alcoholic* extract, and you will not be so likely to meet with disappointment in its use. The *aqueous* may be cheaper, but it is dear at any price, as it is almost if not quite inert and worthless.

Time fails to speak of the improvements in pharmaceutical processes, and of old standard remedies which have recently been taken up from bye places where they have been left to lie, consigned thither by the tender mercies of money-gripping manufacturers—men who have subordinated science and the public weal to lucre—old remedies, I say, taken up, and the dust of neglect wiped from them, polished by the appliances of science, until the old familiar face renews its youth, and shines again with rejuvenated lustre. A brighter day is coming for old favorites, like the *spiritus nitri dulcis*, the *spiritus etheris compositus*, and all kindred preparations. A short allusion to two or three preparations must suffice for the present.

The Pharmacopœia defines *adeps* to mean the prepared fat of *sus scrofa*, free from all saline matter. How many physicians get that so, unless they take the trouble to prepare it themselves? Impressed with the importance of this question, the writer fitted up an apparatus, and operated on some thirty pounds of lard, such as is found already rendered in provision stores. The result was rather surprising, both as to the amount of feculent matter thus



removed from the lard, and the improved texture of the fat thus treated. It is to be credited that the disrepute into which unguents of almost all kinds have fallen, is in consequence of the imperfectly prepared axunge furnished. Another improvement may be found in saturating fats, such as are employed in medicine, with some odorous body. Gum benzoin is often employed for this purpose, and the effect seems to be the prevention of the change known as rancidity.

Among the improved processes for pharmaceutical preparations, we may cite that for the cerate of cantharides. The process consists of exhausting the flies with alcohol by the displacement process, evaporating this tincture to the consistency of a soft extract, adding the wax, resin and lard, melting them together, occasionally stirring; maintain at a temperature of  $212^{\circ}$  for fifteen minutes. Strain through linen to separate the extractive and other insoluble matter that may be present, and stir until cool. This cerate should have a slight greenish-yellow hue, of rather firm consistency, and possessing in a perfect degree the active properties of the Spanish flies. The quantities used may be those directed in the U. S. Pharmacopœia. The cerate made by this process is offered as a substitute for the officinal cerate, from its elegance and greater efficacy, which has been fully attested. It is found to vesicate well, and to leave behind it none of that soreness so much resembling a burn, which is often experienced after the use of the flies in substance in the cerate. The heating of the alcoholic extract with the ingredients of the cerate affords a solution of the cantharidin in the oily matter, and at the same time a separation of the extractive.

Griffith's Myrrh Mixture is a preparation much used; yet not one apothecary in a dozen dispenses it in the shape in which it ought to be made. It is very easily done, however, with a little care and some labor, without which nothing that is worth having can be got. Let us take the quantities for a gallon, and I will set my newly arrived clerk to work upon it. First, get out your two ounces of gum myrrh. Stop! what are you going to do with that powder? You will never be able to make a decent mixture with powdered myrrh. Go to the drawer and pick out your finest and clearest lumps. You have got two ounces, have you? Ah! you have got the weight by which you sell, not that by which you compound. What is the difference? There is some eighty grains, sir; enough, in some cases, to make a matter of life or death, if it is only two thirds of a grain to the ounce. So far, so good. Now weigh out your carbonate of potassa and your sugar—six drachms and two scruples of the first and two ounces of the latter; put them into a large wedgewood mortar, and grind fine with the pestle. Now, then, we are to prepare the menstruum—as we are to make a gallon, and a gallon is equal to one hundred and twenty-eight fluid ounces, and our bottle will hold but half a gallon—how are we to

proceed? Nothing is easier—divide one hundred and twenty-eight by two, and we have sixty-four ounces. But of this sixty-four ounces, eight ounces must be allowed for the spirit of lavender, which enters into the composition of the mixture. We accordingly take fifty-six ounces, or three pints and a half of rose-water; triturate the myrrh with it, added by small quantities at a time, grinding with great perseverance, often scraping the gummy mass off the pestle, until the myrrh is reduced long before the bulk of the rose-water is added; strain it with expression through the fabric known as Nainsook cambric, and finally add the spirit of lavender. This should by no means be the compound tincture of lavender, or red lavender, as it is commonly called, but should be a few drops, say twelve, of choice otto of lavender, dissolved in eight ounces of spirit. We now have the dry ingredients for one gallon of the mixture dissolved in half the quantity of menstruum, and to dispense it we take, say four ounces of this mixture as prepared, and four ounces of rose or good common water, in which we dissolve twenty grains of crystallized sulphate of iron; mix the two solutions, and the thing is done. The advantage of this process is, that it takes but little longer to prepare the half gallon mixture than it does eight ounces, and, once made, a pint or half pint can be dispensed in five minutes, always furnishing the peculiar green coloration belonging to the proto-carbonate of iron.

One word more. The commercial confection of senna has been a source of deep disgust to the unfortunates who were required to quackle it down, but when they have been enabled to turn to the officinal preparation, the change has proved doubly grateful. The specimen made according to the formula of the U. S. Pharmacopœia contains forty-two grains of powdered Alexandria senna to the ounce, and operates *tuto, cito, et jucunde*.

Thus far we have taken a meagre glance at the progress of the materia medica during the ten years which have just closed. Many things have been omitted which might have added interest to the report; the aim of the writer has, however, been to say what is useful—and that attained, he is satisfied. Should the Association see fit to commit the subject to him another year, he will promise his best endeavors to act faithfully, and so far as possible to consult the interest of the Association.

All which is respectfully submitted.

Portland, June 17, 1861.

H. T. CUMMINGS, M.D.

#### LETTER FROM FORTRESS MONROE.

GEN. HOSPITAL, FORTRESS MONROE, VIRGINIA, }  
June 30th, 1861. }

MESSRS. EDITORS,—There are about one hundred and twenty-five patients at present in the General Hospital; the number is liable, of course, to sudden and considerable variation. Many of the



cases are of the acclimating diarrhœa, which troubles most new comers here, and some quite severely. Many more cases are of bronchitis, debility, diarrhœa, &c. &c., in patients convalescent after measles, and sent hither from the encampments at Newport's News and elsewhere. Besides these comparatively simple cases, there are, however, others of a more serious character, as typhoid fever, dysentery, acute rheumatism, &c. &c. A remarkable feature in the medical wards is the presence of somewhere about a dozen cases of phthisis, not incipient or doubtful, but far advanced, and most easily diagnosticated; also one case of chronic nephritis. These instances are particularly of interest, as showing that great numbers of troops have been mustered into the service of the United States who would have been thrown out by a thorough and intelligent inspection. As illustrating the same fact; in one of the surgical wards I found a patient with an aggravated "ongle incarnée" on each great toe, with which he had been troubled, *more or less*, for several years; of course, a march of a few miles put him here *hors de combat*, and a burden to the country. There is also in the medical department one case of scurvy (land), two cases of disordered action of heart, the result of fatigue, and a great many other cases of debility resulting from fatigue and exposure, and requiring, for treatment, rest more than anything else. There have been also several cases of varioloid about this post, which very fortunately has not shown much disposition to spread. The state of health may be considered excellent. With the exception of the cases of phthisis, which ought never to have been enlisted, and the few instances of varioloid, which would have been avoided by proper re-vaccination, there have been very few cases of consequence. It must be acknowledged that this is a most auspicious state of things as representing the health of such a large body of troops as is stationed in this neighborhood.

Thus it will be seen, that although the medical department does not possess great interest—and it is to be hoped that it will continue thus deficient, so far as number and gravity of the cases is concerned—still it gives aid to nearly one hundred patients, who without this institution would suffer terribly in the frail and temporary hospital sheds and tents attached to the different encampments.

The medical department of the hospital need not at present detain us further, as, although in the highest degree useful, it really presents nothing of much interest. In the surgical wards are, however, many cases illustrative of military surgery. Of these I will give you some account, necessarily hasty from the pressure of extremely arduous and fatiguing duty in the performance of the methodical inspection, vaccination and re-vaccination of the troops under his command, which Maj. Gen. Butler has so honored me as to place entirely under my direction. Several of the cases of gunshot injury have been the result of accidental discharge of fire-

arms, some from sentries firing on those who omitted or refused to give the countersign; but several, also, are wounds received in the ill-starred attack on Great Bethel. Among the most important of the first cases is one of musket wound through the posterior fleshy part of the middle of the thigh. The weapon was discharged at the distance of a few feet from the patient, and in consequence of this proximity the wound is very large. At present, about two weeks since its infliction, the wound of entrance is as large as the palm of one's hand,\* that of exit about two thirds that size. Both wounds present a healthy granulating surface; the sloughs entirely separated some two or three days since, and the patient is doing well in all respects.

In another ward are two patients with wounds of the popliteal region. In one, a ball passed between the popliteal vessels, &c., and the knee-joint, injuring neither; in the other, the missile passed between the integuments and the vessels. In both, the narrowness of escape was remarkable, and both are rapidly recovering. A case of gun-shot wound of the hand is also here, in which the middle finger, with its metacarpal bone, was so shattered as to necessitate its removal on the field of battle. This case is also doing perfectly well. A case in which the ball passed in behind and below the shoulder, through both scapulæ and out at a corresponding point at the opposite side, is curious. The wound was probably received when the man was in the act of firing, with his side presented to the enemy. Another case is of similar superficial wound of the abdomen. One of the results of accident was a severe gun-shot wound of the wrist, entirely dividing the flexor tendons, with extensive sloughing. The ball grazed the bone without fracture; but, from the great loss of substance, and the irremediable division of the tendons, amputation seemed, when last I saw the patient, merely a question of time. Several patients are in hospital suffering from severe contusions from fence rails, struck by cannon balls, having come in contact with various parts of their bodies. One case threatened peritonitis, but that, with the rest, is now convalescent. But the most interesting cases are two of gun-shot fracture of thigh, one at the lower part of the upper third. In the other, the ball entered at a point between the trochanters, and passing inward, upward and backward, found its exit about the middle of the right buttock. Both these cases, contrary to the traditions of military surgery, are doing well. In the first, the wound (inflicted 20 days since) has closed at the point of exit, and that of entrance is quite free from slough, has nearly ceased to discharge, and is closed almost to the surface. In fact, the case has hitherto advanced to restoration even better than ordinary

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\* The rule that the wound of exit is larger than that of entrance has, for some of its exceptions, those cases where the weapon discharged is at a very short distance from the sufferer. Beside the ball, the cartridge cover, and even part of the powder of the charge, together with portions of the dress, may enter the wound, contributing to make the entrance large, while only the ball itself may pass out, leaving the other foreign bodies in the *trajet*.



compound fractures of the thigh; and it seems probable that the ball in passing (inward and somewhat downward) through the soft parts of the back of the thigh, barely touched the bone, and produced a fracture without comminution. In the other patient, wounded at the same time, profuse purulent discharge is going on from the dependent wound (that of exit in the nates), and the almost certain extensive comminution of the bone, and probable disorganization of the hip joint, led to the apprehension of a result finally unfavorable. Still the patient appears well, has a good pulse and appetite, and were it not for occasional attacks of severe pain from spasmodic contraction of the wounded muscles, would have comparative immunity from acute suffering. Were it not for the desperate nature of the alternative, this would have seemed a proper case for early amputation at the hip; but at the time it was brought here, it seemed proper to wait the progress of the case before having recourse to so desperate an operation. An interesting instance of gun-shot injury is one where a large ball (probably "grape") entered the abdomen a little below and to the right of the point of the ensiform cartilage, and did not pass out. An examination of the wound, as far as prudent, was made without discovering the projectile, and the speedy death of the patient was anticipated as a necessary consequence of such a wound. A few days after his admission, he had fever, and jaundiced skin, urine, &c., followed by chills. These symptoms, however, gradually subsided, and he is now *apparently* improving. In another case, which terminated fatally two days after my arrival, fourteen from the receipt of the injury, and in which an autopsy was not made,\* the ball entered anteriorly below the sternum, and passed out near the spine considerably above that point, undoubtedly passing through the diaphragm, though no symptom indicated injury to the lungs or great vessels. There have been several amputations (five, I think), all of the upper extremity, one above the elbow, for compound gun-shot fracture of the latter joint; the rest for similar injuries of the hand, wrist and forearm. Other cases of traumatic injury there have been and are here, but of these a portion had either left the hospital dead or convalescent before my coming, and those which remain do not possess much interest. Of other surgical cases are several of syphilis; orchitis, resulting, not from gonorrhœa, but from blows and long marches; one case of partial rupture of the attachment of one of the heads of the gastrocnemius, from violent exertion at the battle of Bethel; and several instances of enlargement, tenderness, &c., of the inguinal glands, simulating bubo, resulting from the long, rapid and extremely exhausting march to and from that engagement. In connection with the latter cases, it is worth stating, that as a result of such marches

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\* There have been no autopsies made at the hospital yet. The extreme heat of the weather, together with the custom hitherto of sending the bodies of deceased soldiers back to their native States, have been the principal reasons for this omission.

and violent and continued labor in throwing up entrenchments and stockades at Newport's News and elsewhere, many patients with incipient hernia and tendencies thereto, were placed *hors de combat*, and had to be discharged from service. Such cases, as well as those before mentioned of phthisis, &c., illustrate the importance of a full and faithful inspection of recruits for the future. Let such inspection be made carefully and laboriously by *young* men, and not, as many of them have been made, by an old one, who casts his eye over some hundreds of recruits, drawn up in line for the purpose, and in the profundity of his omniscience pronounces them fit for duty.

I have thus hastily endeavored to give an account of the "General Hospital" at Fortress Monroe, and the cases at present under treatment, but have omitted to state that the building occupied for the Institution was designed for, and till recently was occupied as a fashionable sea-side Hotel, whither the F. F. V.'s used to throng, as our people do Nahant and Newport-ward, in the torrid months of Summer. I understand that nearly eight hundred guests have been often crowded somehow into it. It contains two hundred and fifty rooms and ample capacity for five hundred patients or even more, and is in every way vastly preferable for Hospital purposes to any edifice in this neighborhood at all approaching it in size. Within the walls of the Fortress there is another Hospital, with room for from thirty to thirty-five patients. It is the old post Hospital—is now used for the sick and wounded of the "regular" army, a small body of which is stationed here, and is under the immediate charge of Dr. Cuyler, the senior "regular" surgeon and medical "Director" of this district, and two assistant surgeons of the old Medical Staff. At the time I visited it, a few days since, there were but five or six patients there, and but two of these confined to their beds—one with wound of abdomen, which proved fatal the next day, the other of disease which, as yet, had not been diagnosticated. Everything about this Hospital seemed in perfect order, neat, clean, and well ventilated, and its capacity was undoubtedly perfectly adequate to former exigencies, although now, of course, entirely insufficient.

July 9th.—The above was principally written previous to the 1st of the present month. At that time I went to Camp Butler, Newport's News, whence I have just returned. During my absence, of the cases above described—the first (flesh wound of thigh) has progressed well and looks favorable in every way—metacarpal bone, ditto. Amputation has been performed by Dr. Kimball in the case of injury of the wrist, with division and sloughing of the flexors, and the patient is getting on finely. The fractures of the thigh are continuing to do well; the worst case, particularly; the pulse continues good, and the appetite; the anterior wound, of entrance, is closed, and the discharge from the posterior wound is much diminished. It will be, of a verity, a striking case of reco-



very if it should prove one. In the case of wound (probably by grape shot), in the region of the liver, the chills and other unfavorable symptoms have become aggravated, and the prospect in every respect unfavorable—its fatal termination is only a question of days. During my absence, two cases of gun-shot injury have been admitted, both the result of accident. In one it was found necessary to resect the lower half of the radius and the fore-finger and thumb with their metacarpal bones and part of the carpus. The other case is one of very extensive contusion of the soft parts of the outside of the hip without fracture; the sloughing will be enormous, and there are indications that important arterial branches, perhaps the femoral itself, may be involved in it and the patient in great danger from secondary hæmorrhage.

HENRY AUSTIN MARTIN.

#### USE OF ARSENIUS ACID IN APOPLECTIC CONGESTIONS.

BY DR. LAMARE-PICQUOT, PRINCIPAL PHYSICIAN TO THE HOSPITAL OF HONFLEUR.

[Translated from the Gazette des Hôpitaux of March 7th.]

M. LAMARE-PICQUOT thinks that the so-called *rational* treatment of apoplectic congestion, generally employed at the present day, is open to the objection of being directed rather against the symptoms than the cause of the malady. Previous to the appearance of the active symptoms of apoplectic congestion, he says, there occurs a series of circumstances and phenomena which prepare the way for it and produce it. This first cause has appeared to him to show itself always at the time that we perceive confusion of the head, vertigo, noises in the ears, &c. Under these circumstances, if the symptoms are sufficiently pronounced to have recourse to bleeding, he has noticed that in all these patients the *cruoric* element of the blood (the globules) greatly exceeds that of the serum. He has met with some patients presenting the symptoms of apoplectic congestion in a very marked degree, whose blood afforded seventy-five parts of cruor in one hundred, and sometimes even more. Now, he adds, whenever the cruor exceeds fifty-four parts in a hundred, there are manifested some symptoms of cerebral congestion.

Bleeding at that time is a means of temporary relief, but it does not in any way permanently relieve the preponderance of the cruor over the serum. The medicine *par excellence* to bring about this important change is the solution of arsenious acid. This medicine, endowed with a remarkably debilitating power, restores gradually the equilibrium between the cruor and the serum. This fact is very easily verified, if, after the use of this remedy for thirty or forty days, we take a little blood for examination.

When the system only shows slight general symptoms of cerebral congestion, arsenious acid in the dose of a few milligrammes, taken in solution in the drink at meal times, is sufficient to arrest

it. Time is always required to bring about the desired change in the elements of the blood. A month is generally enough to obtain some results; but to restore the normal condition it is necessary to continue the use of the remedy longer.

In more grave cases we may without danger increase the dose of arsenious acid. "I have," says the author, "in my own person, carried it as high as fifteen milligrammes a day, and continued it for many months. It is a remarkable fact that the more marked and intense is the cerebral excitement, the better does the organism bear this medicine."

For some years past M. Lamare-Picquot has employed, in preference to arsenious acid, the arseniate of soda. He does not resort to bleeding except in very grave cases. "I have at this time," says he, "under treatment, the twenty-third instance of return of the primary symptoms, and if I should add the cases of recovery of patients predisposed by their constitutional condition to these dangerous symptoms, I might make up the number of forty-three or forty-four cases which have come under my care, without a single death from apoplexy."

It is necessary to add, that an important group of cases is excluded from this class; these are the apoplectic congestions of subjects very advanced in life and very feeble, as M. Lamare-Picquot is of opinion that in these the parenchymatous organs might, under the influence of the loss of blood and a very debilitating agent, pass into a condition of hyperæmia, and that this new difficulty might terminate life by a serous congestion. "Moreover," adds the author, "as man must make his exit from life by some door or other, I have never employed this treatment with old men threatened with apoplexy."—*Bulletin de Therapeutique*.

## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JULY 25, 1861.

REPRODUCTION OF BONE.—In the JOURNAL of the 11th inst., we published an interesting case of the reproduction of bone after excision, by Dr. E. S. Cooper, of San Francisco, the lower end of the thigh bone being completely reproduced within the period of a year. The subject is attracting considerable attention in Europe at the present time, and the French Academy has offered the very liberal prize of twenty thousand francs for the best treatise on the subject, to be awarded in the year 1866. The time is so distant and the prize is so large that we hope our own countrymen may be induced to enter into competition. We translate, from the *Gazette des Hopitaux*, the formal announcement of the Academy.

"The French Academy proposes, for the year 1866, a grand prize on the subject of the reproduction of bones by the preservation of the periosteum.



"The Academy, wishing to indicate in a marked manner the importance which it attaches to the proposed question, has decided that the prize shall be *ten thousand francs*.

"Informed of this decision, and appreciating all the benefits likely to result from such a great advance in surgery, the Emperor immediately wrote by his Secretary to the Academy that he would double the prize. This therefore will be *twenty thousand francs*.

"Essays offered for this prize should be sent to the Secretary of the French Institute before the first of April, 1866. The authors must enclose their names, and their papers must be written in the French language."

The same number of the *Gazette des Hopitaux* contains a report by M. Maisonneuve of the entire reproduction of the right half of the lower jaw. In this case the articulating condyle was removed with the jaw. The case was one of necrosis, and the periosteum had already become thickened by the formation of a thin layer of bone on its inner surface. This was divided and turned back, and after being entirely disengaged the bone was removed to the socket; the teeth were left hanging in the gums. At the time of the report, six years and a half after the operation, it was almost impossible to determine by examination which half of the jaw had been removed. The teeth, it should be mentioned, after two or three years, came out one after the other.

A second case is next reported by Dr. Richarme, of Rive-de-Gier. In this case there was a reproduction of more than three quarters of the tibia and fibula, including both malleoli, and extending nearly to the knee. The leg had been crushed by the wheel of a railroad car, and amputation had been proposed. The patient, however, preferred to save the limb, if possible, even at the expense of additional suffering. Necrosis took place, and numerous openings formed. The dead bone was removed by fifteen operations of from half an hour to an hour each, within a period of six months. The case occurred before the use of anæsthetics was introduced, or the period would have been much shorter. The patient recovered without the slightest lameness.

THE RESULTS OF INTERMARRIAGE. — The consequences of intermarriage have been the subject of much declamation and but little sober inquiry. Evils of every kind have been depicted by some and totally denied by others. Those who denounce and those who favor within limits the practice of intermarriage are both devoid of any large series of observation, or of any perfectly conclusive chain of argument. But it must be said that the balance of facts is in favor of the former.

We read in an abstract from a communication addressed to the Medical Society of Berlin by Dr. Liebreich, some interesting remarks on the evil consequences of marriages between relations. Dr. Liebreich affirms that surdo-mutism, idiocy, and a chronic inflammation of the retina, by which the latter becomes affected with an infiltration of coloring matter which impairs vision—whence the name *pigmentary retinitis*—are in one half of the cases ascribable to marriages between close relatives. Most cretins, according to Maffei, are unable to see very small objects placed close to them; and Dr. Liebreich states that out of fifty idiots observed by him, three were suffering under pigmentary retinitis. One of these idiots belonged to a noble family, which had very seldom in the course of ages contracted alliances with other

families, and the members of which had therefore very frequently intermarried amongst each other. The afflicted person's father had married a cousin of his, by whom he had thirteen children; two of these died early, two became blind owing to pigmentary retinitis, and a fifth was both blind and afflicted with idiocy. One of his sisters married a cousin, and she had an idiot amongst her children.

Mackenzie remarks the coincidence of blindness with surdo-mutism. Dr. Liebreich confirms the fact, showing that out of the 241 deaf and dumb now in the asylum at Berlin, there are fourteen having pigmentary spots on the retina, and, out of these fourteen, eight are of Jewish descent; and it is well known that amongst the Jews marriages with relations are frequent. For the same reason surdo-mutism alone is, according to Dr. Liebreich, often met with amongst the Jews; for while at Berlin there is but one deaf and dumb Christian to 1477 of the same creed, with the Jews the proportion is one to 368. In the fourteen cases mentioned above, the consanguinity between father and mother was verified five times. In another group consisting of eighteen cases, in which retinitis alone was observed without deafness, there were eight patients whose parents were cousins-german, and five the consanguinity of whose parents remained doubtful.—*London Lancet*.

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HARVARD MEDICAL SCHOOL.—The following is a list of the gentlemen who received their medical degrees on the 17th inst., with the subjects of their dissertations.

Howard Franklin Damon, A.B. (Harvard), Boston. *Physiological and Pathological Processes*.

Thomas Haven Dearing, South Scituate. *The Country Physician. What should be his Qualifications?*

Robert Thaxter Edes, A.B. (Harv.), Dorchester. *Bright's Disease*.

Jesse Frank Frisbie, Dover, N. H. *Uterine Hæmorrhage*.

Alfred Houston Haven, Portsmouth, N. H. *The History and principal Properties of the sixty-two Chemical Elements*.

Charles Floyer Pond Hildreth, Concord, N. H. *Gravitation not the Cause of Head Presentations*.

Charles Thacher Hubbard, Taunton. *Systemic Effects of Lead*.

James Stannage Jacobs, Lunenburg, N. S. *Diphtheria*.

Robert Jamison, Halifax, N. S. *Gun-shot Wounds*.

Samuel Moore Logan, Shubenacadie, N. S. *On the Use and Abuse of Medicine*.

Edward Bromfield Mason, A.B. (Harvard), Boston. *Primary and Secondary Amputations after Gun-shot Wounds*.

Henry Augustus Richardson, A.B. (Harvard), Cambridge. *Syphilis among Sailors*.

Andrew Jackson Thompson, A.B. (Bowdoin), Brunswick, Me. *Modern means of Diagnosis*.

July 19th, 1861.

D. HUMPHREYS STORER,  
Dean of the Medical Faculty.

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CUTANEOUS RESPIRATION.—Dr. S. Kneeland, Jr., recently read a communication to the Boston Society of Natural History, on the respiration of the fishes of the blenny family and genus *pholis*, called shauny in Europe, and of which a few specimens have been taken in Boston Harbor.

“The shauny has the habit of creeping out of water by means of



the ventral fins as the tide recedes, hiding in crevices of the rocks, and there remaining until the tide again rises; they have been known to live thirty hours in a dry box. In this fish there is no air-bladder; the gill openings are very large, and would seem to permit the gills to become dry very soon, and produce death as soon as in the mackerel and other fish with large gill openings; there does not appear to be any special apparatus for separating the leaflets of the gills for admitting and retaining air, and thus delaying the period of asphyxia; there is no labyrinthic arrangement as in the climbing perch (*Anabas*), nor the small branchial openings of the eels.

"It seems most likely that the skin is the principal medium through which respiration is effected in this fish while in the air, especially as the body is soft and scaleless. We know that this cutaneous respiration is sufficient to purify the blood in some fishes, as the *Synbranchus* of Guiana, which is found buried in the earth at a considerable distance from water; and also in frogs and salamanders, both adult and young.

"Professor Agassiz observed that although the gill openings in this fish are very large, the cheeks, as in blennioids generally, are much swollen, and the gill-covers fit very closely, and, the branchial rays being soft, may serve to retain the water in the gills for a considerable time."

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DOUBLE PIG.—At the same meeting of the Boston Society of Natural History, the President, Professor Jeffries Wyman, gave an account of a monstrosity which he had recently examined,—a partially double pig.

"In this specimen there were two sets of lower extremities, the bodies partly fused, two pairs of upper extremities, a single head, two lateral ears, and a median one, and three nostrils on the snout. It presented symmetrical organs on the median line made up of organs naturally not on the median line and unsymmetrical; this may take place in any double organs, as the eyes, ears, legs, arms, lungs, kidneys, &c.; he illustrated it by a comparison with a single terminal leaf in plants, which is composed of the upper halves of two leaves. In this pig, the doubling took place also in the brain. On separating the two sides of the cerebral hemispheres, which were made up of the right hemisphere of one brain and the left hemisphere of another, was seen a third hemisphere, with a single optic thalamus and striated body, and below these organs double; to each of the lateral hemispheres was appended a distinct cerebellum and spinal marrow. It is a question of considerable physiological interest, whether here there was a single or two organisms. C. F. Wolff maintains that there may be two primitive stripes on one germinal membrane, or one bifurcating at the top or at the bottom, thus making double monsters single organisms.

"Prof. Agassiz said that he thought that the study of corals would show that the general idea of individuality is not correct. *Astræa* grows by single tubes, growing in length but not enlarging in diameter, and the buds arise from the interstices between the tubes by the vital power of individuals; in other corals the buds grow from the sides, and may form independent and disconnected individuals; in others the tubes become wider with the increase of length, and finally form two tubes, with two mouths and two stomachs, and yet the two branches have proceeded from a single organism; two individuals have been developed from one base."—*Proceedings Bos. Soc. Nat. Hist.*

**THE LATE CENSUS OF ENGLAND.**—The returns for England and Wales have just been issued. The gross population, exclusive of the army, navy, and merchant seamen abroad, amounts to 20,205,504; including the army and navy, it amounts to 20,223,746, against 18,054,170 in 1851. The number of inhabited houses is 3,745,463 against 3,278,039 in 1851. The chief increase is in Middlesex (319,195), Lancaster (397,508), Surrey (147,603), Stafford (137,868), and Kent (117,909). There is a decrease in the counties of Cambridge, Norfolk, Rutland, Suffolk, Wilts, Anglesey and Montgomery. In the metropolis there is a decrease in the parishes, the largest (10,382) being in the City. The largest metropolitan increase is in St. Pancras (198,882), Kensington (186,463), Marylebone (161,609), and Islington (155,291). The entire population of London, with the Local Government Act, is 2,803,034, against 2,362,236 in 1851.—*London Lancet*.

**LEUCOCYTHÆMIA.**—At the meeting of the *Société de Médecine Pratique* in January last, M. Bouchut read, in the name of M. Corlieu, an interesting case of leucocythæmia, in the course of which he made some remarks upon the case. He agreed entirely with M. Corlieu in his views of the nature of leucocythæmia. In a service of children where cachexia is abundant, there are very frequent opportunities of studying the number of white globules in the blood. It is, he said, what I have very often been able to do by means of a puncture. I have come to the conclusion that besides hypertrophy of the spleen, of the liver and lymphatic ganglia, leucocythæmia is found in patients who have been a long time suffering. More than that, I have been able to detect frequently in persons affected with diarrhœa, a large number of white globules, and the next day the disproportion did not exist. To sum up, then, leucocythæmia is a secondary affection, a complication, an alteration of nutrition.—*Gaz. des Hôpitaux*, March 16th.

Dr. Alonzo Garcelon, Hospital Surgeon, Dr. H. H. Hill of Augusta, Drs. Wm. Wood and J. T. Gilman of Portland, and Dr. J. C. Bradbury of Oldtown, constitute the Medical Board of the State of Maine, to examine candidates for appointments as Surgeons and Assistant Surgeons of the Regiments of that State.

#### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, July 20th, 1861.

##### DEATHS.

	Males.	Females	Total.
Deaths during the week, . . . . .	47	28	75.
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	42.4	39.0	81.4
Average corrected to increased population, . . . . .	..	..	90.85
Deaths of persons above 90, . . . . .	..	..	..

##### Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
12	14	0	4	2	0	1	0	0

##### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	29.986	Highest point of Thermometer, . . . . .	85.0
Highest point of Barometer, . . . . .	30.176	Lowest point of Thermometer, . . . . .	56.0
Lowest point of Barometer, . . . . .	29.702	General direction of Wind, . . . . .	W. S. W.
Mean Temperature, . . . . .	70.3	Am't of Rain (in inches) . . . . .	1.56

**DEATHS IN BOSTON** for the week ending Saturday noon, July 20th, 75. Males, 47—Females, 28.—Abscess (of hip), 1—accidents, 7—inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 2—inflammation of the brain, 1—bronchitis, 2—cancer, 1—cholera infantum, 14—consumption, 12—convulsions, 2—diabetes mellitus, 1—dropsy, 3—dropsy of the brain, 1—dysentery, 1—scarlet fever, 4—yellow fever, 1—infantile diseases, 1—disease of the liver, 2—congestion of the lungs, 1—inflammation of the lungs, 2—malformation, 1—marasmus, 4—paralysis, 1—peritonitis, 1—pleurisy, 2—scrofula, 1—teething, 1—sore throat, 1—unknown, 2.

Under 5 years of age, 39—between 5 and 20 years, 7—between 20 and 40 years, 13—between 40 and 60 years, 10—above 60 years, 6. Born in the United States, 55—Ireland, 15—other places, 5.



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INJECTIONS AND IRRIGATION OF THE BLADDER.

BY D. D. SLADE, M.D., BOSTON.

[Communicated for the Boston Medical and Surgical Journal.]

ALTHOUGH the benefits to be derived from injections and irrigation of the bladder, in various morbid conditions of this organ, are by no means unknown to the profession, I feel confident that with us, at least, this therapeutic measure is not so generally employed as the beneficial results attained would seem to warrant. I propose to offer a few observations upon the history, object, and manner of using injections and irrigation in diseases of the vesical cavity.

I do not find that any special mention is made of injections or irrigation of the bladder previous to the early part of the last century, and then chiefly in reference to the solution of stone in this organ. At this period Dr. Hales, of England, showed the possibility of passing a stream through the cavity by means of a double-current catheter. His experiments were made principally upon the lower animals. About the same time, a French surgeon, Dessault, recommended the use of the Barèges water, not only by the mouth but as injections into the bladder, for the purpose of dissolving stone. Gruithuisen, a German practitioner of much eminence, thought that the *strength* of the current directed against the stone, might be of no inconsiderable importance, and so proposed to carry a stream through his double catheter by a tube, communicating with a reservoir on the top of a two-story house. Dr. Butler, of Edinburgh, in 1752, made some experiments with lime-water, which plan was also recommended by Fourcroy, Berzelius and others. Amussat, Magendie, Leroy, Brodie and other practitioners, have done much, by their influence, to attract attention to this method of treatment of stone, and thus indirectly to introduce the use of vesical injections for other purposes.

Irrigation of the bladder, as a mode of treatment directed against the immediate diseases of the organ, was, however, more

particularly employed by Mr. Foot, of London, and this gentleman in fact may be said to have originated the practice. But it is to Civiale, that we are indebted, at the present day, for the safe rules and conduct which should govern us in the employment of means, which are far from harmless, when exercised by a careless or inexperienced hand. M. Civiale, in 1826, in writing upon lithotrity, advocates the employment of irrigation and injections of the bladder, particularly in the vesical catarrh of old people, a practice which has now, chiefly through his instrumentality, become fully established. In 1823, Cloquet highly recommended irrigation, and exhibited, before the Academy of Medicine, a patient in whom he had cured vesical catarrh by this means, making use of a double catheter. Since that period, this method of treatment of diseases of the bladder has been more and more resorted to, especially by English surgeons.

Irrigation of the bladder is more particularly to be employed in the treatment of catarrh, and combined with other means is a valuable auxiliary. It is particularly so, when there is a great abundance of thick, tenacious mucus present, and where there is an atonic condition of the muscular walls—preventing a complete evacuation of the urine.

It may also be directed against any existing local inflammation of a chronic nature, or when we desire to cleanse the organ from any deposits upon its mucous membrane.

The operation is to be performed with tepid water injected by means of a pint syringe, through a double catheter, with large eyelets to prevent any obstruction. By making use of a double catheter, a continuous stream may be thrown in, the fluid, mixed with the mucus and other matters, passing off by one tube as fast as it enters by the other. As to the temperature of the water used, there is some difference of opinion. Cloquet, Guthrie, Gross, Brodie and others, speak of tepid water as most beneficial, while Civiale and his school advise cold, as being better adapted to rousing the contractility of the organ. As a general rule, I should advise the use of tepid water in catarrh of the bladder, inasmuch as this most effectually cleanses the parietes of the organ of the mucus, which is often excessively ropy and tenacious; moreover it is more agreeable to the feelings of the patient. Cold water may be employed, as Civiale recommends, when the bladder has lost its powers of contracting to its normal degree, and where the mucus is not abundant. Various substances may be added to the water used in irrigation, but of these I shall speak more especially when treating of injections.

In the operation of injecting or irrigating the bladder, it will be found to contribute greatly to the comfort of the patient, if, instead of fixing the nozzle of the syringe directly upon the catheter itself, we connect the two instruments by means of an elastic tube either of caoutchouc or of gutta percha. In this way no



shock can be conveyed from the hand directing the syringe to the bladder, often so excessively sensitive. A tube of similar materials and of any desired length, may be also attached to the other tube of the catheter, so that the fluid may be easily conveyed to a vessel placed for its reception, without danger of wetting the patient. The vulcanized India-rubber bottle, similar to those of the ordinary enema apparatus, may often be advantageously substituted for the common syringe, because it can be worked with one hand only, leaving the other free to adjust the catheter, &c. Irrigation is not to be practised more than once or possibly twice in twenty-four hours, and not at all if there are symptoms of acute inflammation present.

Injections into the bladder are applicable in the same cases where irrigation is employed. There are certain cases of vesical irritability accompanied by a greater or less abundance of the muco-purulent deposit of which I have spoken, in which there is no evidence of inflammatory action—and which, in fact, has not existed, all the morbid symptoms present being due to an atonic or relaxed condition of the mucous membrane. No antiphlogistic treatment can be applicable in cases of this description, but injections, particularly of a stimulating nature, are highly useful.

In many cases where injections are applicable, we shall find that the introduction of the catheter gives great pain on account of the highly sensitive condition of the urethra. This condition must be overcome, and the urethra prepared by the gradual introduction of instruments. For this purpose we must make use of the wax bougie, introducing only so much of the instrument at a time as can be borne easily. This treatment is to be continued until the morbid sensitiveness is overcome—a length of time which varies according to circumstances. The injections should at first, at least, be tepid, and should be thrown very slowly into the bladder, the urine having previously been drawn off, and should be retained only so long as the organ can tolerate it—generally from one to five or ten minutes. The quantity at first should also be very small, and if any medicinal agent is added to the water, the solution thus formed should be very weak.

Instead of a single injection, two may be thrown in—one immediately after the other, and about a quarter part of the second injection should be allowed to remain in the bladder.

The injections should not be renewed oftener than two or three times a week, especially at the commencement, and not even as frequently if there be any contra-indications. Combined with these, we must advise other appropriate treatment—rest, demulcent drinks, baths, anodyne enemata, &c.

M. Civiale recommends very highly the use of cold injections also to arouse the dormant contractility of the bladder. They may be had recourse to when the use of the catheter has ceased to excite any irritation about the neck of the bladder. Tepid

water is employed for the first injection, to the amount of three or four wineglassfuls only. The temperature of the water is gradually lowered to about 60°, and as soon as the patient is able to bear the contact of the cold water without pain, two or three injections in immediate succession are thrown into the bladder. These have frequently the effect of exciting the bladder to contract, and this once attained, the case progresses favorably.

Compound injections of various kinds, astringent, anodyne and alterative, may be employed. For this purpose, alum, lead, nitrate of silver, creosote, opium, laudanum, iodine, nitric acid, extracts, tinctures and decoctions of various substances, have been thrown into the bladder with more or less benefit. Without advocating the use of one of these articles above another, I would merely remark that in most cases injections of pure water are most suitable.

#### THE CYSTICERCI OF TÆNIA IN MAN.

(Continued from page 405.)

IN the lateral half of a brain preserved in alcohol, at the Anatomical Museum of Strasbourg (No. 2,305), marked as having vesicular worms on its surface, mentioned by Lobstein,\* the history of which is unknown, I found more than sixty cysticerci (*C. turbinatus*, K.) sometimes lodged in the pia mater, in the interstices of the convolutions, at times in the thickness of the convolutions themselves. Numerous others were found in the ventricles, in the cerebral substance, and in the choroid plexus. A larger number of them were lodged in the body or on the surface of the cerebellum. Those dispersed in the cerebral substance revealed themselves externally by simple or semi-transparent projections. It is unfortunate that I was not able to obtain any history of the brain, and consequently of the symptoms during life, as well as the cadaveric lesions. The parasites could not have provoked a deep irritation of the brain, as there were no milky patches or other traces of inflammation. Their development seems to have been very gradual, as a large number of them were encrusted with calcareous salts. The cysticerci were contained each in a fibrous layer, thin, transparent, smooth on the interior, united by fibrous prolongations to the neighboring or contiguous parts. This fibrous shell reproduced exactly the form of the parasite. Those developed in the interior of the cerebral tissue have in general a rounded form. Those placed between the convolutions are slightly flattened, and when confined in their growth by a vessel passing across them, have taken a bilobed, trilobed, more or less irregular form, according to the obstacle encountered. These deformities only affect the caudal vesicle, not the curved-up portion of the

\* Lobstein, *Traité d'Anatomie Pathologique*, t. i., p. 530.



parasite. Their size varies, and the development of the caudal vesicle is proportionate to that of the cephalic extremity. The transverse diameter of the vesicles varies from  $0^{\text{mm}},004$  to  $0^{\text{mm}},007$ . Some have  $0^{\text{mm}},013$ . They are whitish, transparent, and distended by clear liquid with certain opaque clots suspended in it, formed by amorphous yellowish granulations. At a point of their surface was observed a small hilum or umbilicus (orifice of invagination), its form and its obliquity rendering it difficult to be perceived, having a diameter of  $0^{\text{mm}},2$  to  $0^{\text{mm}},6$ , and continuous with an oblique canal plunging into the middle of a small opaque mass of a greyish yellow. This, in the form of a hard, ovoid nucleus, flattened laterally like a bean, of  $2^{\text{mm}},3$  to five millimetres in its large diameter, was prominent in the interior of the vesicle. This nucleus is formed by the cephalic extremity of the parasite, invaginated and curled up on itself, describing a spiral like that of the shell of the snail. At its upper extremity it presents a semi-lunar opening, the orifice of the spiral (recoquillement) difficult to see, but easily proved by incising the parasite in the flattened plane of the nucleus. The head and the commencement of the neck are not turned back, but are free and hidden at the extremity of the invaginated portion. The invaginated portion of the body exhibits transverse folds, varying in number from fifty to two hundred or three hundred; its inner surface is covered with numerous oval-shaped corpuscles. The spiral cavity, which extends from the umbilicus externally to the interior of the vesicle, is in the greater number of individuals obstructed more or less by a solid cretaceous deposit formed by the carbonate and slightly by the phosphate of lime. In some individuals the calcareous matter completely imprisons the head, rendering its exit impossible. The parasites stretched out have a length of  $0^{\text{m}},025$  to  $0^{\text{m}},03$ . The head is round,  $0^{\text{mm}},6$  broad, furnished with four oval suckers from  $0^{\text{mm}},28$  to  $0^{\text{mm}},32$  in length, the rostellum semi-spherical; it is furnished, in all the specimens examined, with thirty-two tenacula arranged in two rows—the large from  $0^{\text{mm}},18$  to  $0^{\text{mm}},20$  long; their apophysis situated at an equal distance from each extremity of them, and nearer the extremity of the base, in the small tenacula. The small measure  $0^{\text{mm}},10$  to  $0^{\text{mm}},14$  in whole extent, the claw  $0^{\text{mm}},6$  to  $0^{\text{mm}},8$ . The tenacula are slender, having a close resemblance to those of the *tænia laticollis* or *tænia serrata*.\*

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\* The observations of Werner, Frédauld, of Gunsburg, &c., should be classed with the preceding case, notwithstanding the apparent difference.

Gunsburg does not mention the orifice in the form of an umbilicus at the surface of the caudal vesicle. Frédauld, whose description seemed to Gunsburg conformable to his own observations, affirms that no trace even of this orifice had been found by him, and believed that the head was free, and naturally placed in the interior of the vesicle. Gunsburg, from his plates, appears to have formed the same opinion. As the observation of these cysticerci is a very delicate affair, one is easily led into error. The orifice of invagination is very oblique and cannot be well perceived, except in the direction of its obliquity, under a small fold of crescentic form, whose free border is masked in some sort by the parallel folds of the invaginated extremity. It is only by a very attentive dissection that you can prove the head and a portion of the neck are free at the bottom of the invaginated portion of the body, and then turned on itself spirally in the caudal

Bouchut\* has observed two cases of cysticerci, whose description is not sufficiently explicit to allow us to classify them. In a child six years old, dying from the effects of enteritis, pneumonia and meningitis, previously healthy, Bouchut found upon the convexity of the brain, near the great fissure, in the groove between two cerebral convolutions, a transparent vesicle, its diameter 0<sup>m</sup>.01, in which a small whitish flocculus was swimming. This vesicle raised up the arachnoid, and contained an opaque body formed by a cysticercus (*C. cellulosæ*, Rad.) folded on itself. At its side was a second, whose sac was empty, and seemed in a state of decomposition.

In a girl ten years of age, the right side of the body, the face and the extremities had for three months presented ungovernable movements; the right arm was useless; speech very difficult. At the same time that a semi-chorea existed on the right, a complete anæsthesia to pain was found on the left side of the body. The little girl perceived that she was touched and pinched, but did not suffer. She contracted scarlatina, became albuminuric and suddenly died twenty days after the eruption. At the autopsy, at the posterior part of the right hemisphere, in the body itself of the cerebral substance, a small cyst was found, of the size of a small hazelnut, containing cysticerci; one of them, quite old, was in a decomposing state, and reduced to putrescence in its altered envelope. The other was white, resistant and intact. The head was drawn into the body. The suckers were quite evident, and with the naked eye there could be seen at the centre a black spot, formed by the mouth of the animal and its crown of tenacula. This crown of tenacula was already altered by a deposit of black matter, but it appeared well preserved, and the resisting tenacula did not fall off in the preparation. They were twenty-nine or thirty in number. The neck articulated, narrowed, elongated, communicated with the transparent body, at whose surface could be seen a number of granulations and calcareous patches. This cysticercus appeared to Bouchut to be the type of the variety of *C. cellulosæ*.

I have found in the brain of a woman thirty-two years of age, who died of puerperal peritonitis, a cysticercus to which I gave the name of *melanocephalus*, lodged in the pia mater between the two hemispheres, above the anterior part of the corpus callosum.

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vesicle. Thus, in many other observations, very imperfectly made and useless as regards the natural history of cysticerci, the cephalic extremity was not even found.

Werner well describes the orifice of invagination (*incisio vel foveola*), and the cephalic invaginated part in its lentil-like form—which are very characteristic of the cysticercus *turbinatus*. Werner appears, from the plates of Fischer, to have observed thirty-two tenacula—thus in accordance with myself; whilst Günsburg has drawn twenty-five, and Frédauld only twenty-four. The differences are not important. The number of the tenacula varies with the age of the parasite, whether it remains in the state of a cysticercus or separates into proglottides furnished with a generative apparatus. The size of the tenacula is not more characteristic; their shape and size increase with age, and it is natural that the tenacula observed by Frédauld, only twenty-four in number, should be twice as short as those observed by me, and that these last should present variations in length from 0mm.02 to 0mm.4.

\* *Gazette des Hôpitaux*, 1852, Nos. 20, 21.



The presence of the parasite caused no symptom during life. It was impossible to find any trace of others in the viscera, peritoneum or muscles.

The cysticercus melanocephalus, K., when taken from its cyst 38 hours after the death of the patient, was alive. Its body was perfectly transparent, but soon became opaline when placed in tepid water. The invaginated extremity was seen to contract, to lengthen and to balance itself laterally in the caudal vesicle, the contracted part itself shrinking in those places touched by a pin. The transparency of the body allowed us to see distinctly in the midst of the invaginated portion a small black point, and at its extremity a small infundibuliform orifice. The cyst which contained the parasite was fibrous and thin. In its neighborhood existed a vascularity somewhat pronounced. The caudal vesicle in which the head of the cysticercus was invaginated, had a diameter of 0<sup>m</sup>,013, and contained, suspended in a transparent liquid, a granular matter, whitish, glutinous, formed by globules of 0<sup>m</sup>,006 in diameter and less, mingled with thin filaments.\* The cephalic extremity was invaginated in the caudal vesicle in a way totally different from that of the *C. turbinatus*. It formed a cylindrical prominence, transversely striated, suspended by a narrow pedicle to the umbilicus of the vesicle. At the interior of this invaginated part existed a portion of the parasite at whose external extremity was found the head again invaginated, distinguishable externally by a small black spot. Drawn out of its vesicle the cysticercus was 0<sup>m</sup>,03 in length. The head was quite broad; examined and measured without compression, it had a breadth of one millimetre, and was supported by a neck 0<sup>mm</sup>,2 broad. It was furnished with four suckers 0<sup>mm</sup>,36 long by 0<sup>mm</sup>,25 broad—neither rostellum nor tenacula appeared externally by moderate pressure, even with transmitted light. In the centre of the head, in the midst of the suckers, a blackish areola was visible. Wishing to know the nature of this colored part, I detached the head of the parasite and subjected it to great pressure between two planes. A crown of tenacula appeared, twenty-four in number, placed in two ranges, the smaller ones alternating with the others. These tenacula were turned up symmetrically in the interior of the head, their concavity directed outwards. As the compression became stronger, so did they more and more project from the head forwards and outwards, until they were spread out like the radii of a circle or the petals of a flower, the points directed outwards, the concavity of the hooks backwards. A hemispherical rostellum projected in the centre of these tenacula. The circular prominence upon which the

\* These globules appeared formed by the debris of the cactiformed bodies met with in the caudal vesicle of certain cestoid helminths. These bodies are developed in the caudal vesicle. They consist of a mass of globules from 0<sup>mm</sup>,002 to 0<sup>mm</sup>,006, arranged in pyritiform masses, planted on one another like the ramifications of certain cacti. They seem to represent the sperm-bearing glands of the proglottiferous strobiles. Water alters them, and they decompose very rapidly; the globules then become free, and molecular movements are then observed which seem to bear witness for their vitality, according to Wagener. (Nov. Act., N. C., Breslau, 1854, t. xxiv. Supplement Die Entwicklung der Cestoden, p. 12.)

tenacula were implanted, was colored by rounded pigment granulations, polyhedral, black and grey, having a diameter of  $0^{\text{mm}},04$  or less. The tenacula were massive, the larger  $0^{\text{mm}},17$ , the smaller  $0^{\text{mm}},12$  in length. This is equal to three and a half times their width at the apophysis (*moyenne*), which is placed at an equal distance from each extremity. In the parietes of the body of the parasite, and principally at its internal surface, at a distance of two to three millimetres from the head, were numerous oval corpuscles, the largest of which in their greatest axis measured  $0^{\text{mm}},016$ , the smallest  $0^{\text{mm}},004$ . These were rare in the caudal vesicle, and totally absent in the neck near the head.

Eschricht\* has discovered the presence of the *C. tenuicollis* in man.

*The Difficulty of a correct Classification.*—It is often difficult to distinguish and classify the species and varieties of cysticerci and of tænia, as not one of the characteristic parts of these parasites is absolutely constant. In the same species, the number, the form and the size of the tenacula, the dimensions of the suckers, the form of the diameter of the rostellum, the diameter of the head, and the coloration, are subject to great variation according to their production, the place where they are developed, their age, the animal they inhabit, &c.

Thus, for example, Follin and Davaine† have considered the *C. cellulosa* of man as forming a distinct species, because the number of the tenacula (32) is different from that of the *C. cellulosa* of the pig (26 to 28), as well as by a slightly different form of the head and neck. This distinction cannot be retained, since in one of my observations I found only twenty four tenacula. The tænia solium produced by the *C. cellulosa* has twenty-four to thirty two tenacula. If we follow the measurements of Leuckart, we find the length of the larger tenacula to be  $0^{\text{mm}},167$ , and  $0^{\text{mm}},11$  for the smaller. The measures of Kuchenmister‡ give  $0^{\text{mm}},18$  and  $0^{\text{mm}},126$ . In the two observations of *C. solium*, mentioned by me, the tenacula in one case had  $0^{\text{mm}},18$ , and  $0^{\text{mm}},13$ ; in the other,  $0^{\text{mm}},16$  and  $0^{\text{mm}},13$ . It is probable that these differences occur from individual variations, from the respective age of the cysticerci and the tæniæ observed, and not from a difference in species.

In the observations of *C. turbinatus*, which evidently belongs to the same species as the cysticercus of the tænia, the various parts of the parasite show differences sufficiently remarkable to establish as many varieties as there are observers; thus, for example:

*Size of caudal vesicle.*

Werner.	Frédault.	Gunsburg.	E. Koeberlé.
7 to $20^{\text{mm}}$	6 to $15^{\text{mm}}$	$15^{\text{mm}}$	4 to $13^{\text{mm}}$

\* Cited by Leuckart, Die Blasenbandwürmer, Giessen, 1856, p. 4.

† Comptes Rendus de la Société de Biologie, t. iv., p. 20.

‡ Kuchenmeister. Die in und an dem Körper des lebenden Menschen vorkommenden Parasiten, Leipzig, 1855, p. 178.



*Length of tenacula.*

Werner.	Frédault.	Gunsburg.	E. Koeberlé.
?	0 <sup>mm</sup> ,07 to 0 <sup>mm</sup> ,10	?	{ a, 0 <sup>mm</sup> ,18 to 0 <sup>mm</sup> ,20 b, 0 <sup>mm</sup> ,10 to 0 <sup>mm</sup> ,14

*Number of tenacula.*

Werner.	Frédault.	Gunsburg.	E. Koeberlé.
32 ?	24	25 ?	32

I have already remarked that these variations should be attributed to the respective ages of the cysticerci, to errors of observation, &c.

As regards the form of the caudal vesicle, there is no characteristic mark. It reproduces the form of the place where the parasite has been lodged. When the development is not obstructed, they tend to a spherical shape. In the midst of muscular fibres they tend to become elliptic, and the orifice of invagination is then placed between the two extremities of the ellipsoid.

The pigment deposit of the circumference of the rostellum can no more be considered as characteristic of a species.

The form of the tenacula is the most fixed, though within a certain limit subject to variation.

It is only by a comparison of all the characteristics that we can determine, and often with difficulty, the species of certain cysticerci.

A certain number of tæniæ and the most of their cysticerci are very incompletely described, many varieties being considered as distinct species. New investigations and more finished observations are necessary to establish a satisfactory classification. As yet, any attempt of this nature, with the elements now possessed, must be founded on a base of insufficient solidity.

## PINS IN THE RECTUM.

BY JAMES M. NYE, M.D., OF LYNN, MASS.

[Communicated for the Boston Medical and Surgical Journal.]

A GENTLEMAN, 30 years old, a near resident of mine, has suffered occasionally for five or six years past with pain in the lumbar region and through the pelvis. No soreness was felt; pressure relieved him. He frequently walked with both hands pressed on the lower part of the back.

Last February, a sharp pain was felt in the rectum, while at stool, and on examination a pin was found protruding from the membrane. He seized the pin with his fingers, and extracted it, causing great pain and some hæmorrhage. No trouble followed.

In May, the pains were felt again, and soon another pin made its appearance, and was extracted in the same way, and with the same effects.

The pins were large and colored black; they were of the old

fashioned style, with heavy wire heads, and entirely out of use for fifteen years at least.

The most probable theory is, that they were swallowed some twenty or twenty-five years since, in childhood; and after a long and circuitous journey, had found their way out.

## Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

MAY 27th.—*Tuphlo-enteritis; Malformation of Intestine.* Dr. CABOT reported the following case.

A boy, 13 years old, after eating a large dinner, exercised violently. He was soon after attacked with pain in the abdomen, became faint, and vomited both food and bile. The next morning there was tenderness and induration in the right iliac region, a pulse over 100, but no excessive pain. He got some relief after a discharge produced by castor oil. The next day the tenderness extended across the abdomen, the pulse was accelerated, and he had some strangury. The pain and strangury were relieved by an opiate enema, and fomentations, but afterwards returned and increased. The fourth day the pulse was quick and feeble, and the tenderness increased. It grew less towards evening, but the patient became delirious, and died early on the morning of the fifth day.

Dr. ELLIS reported the autopsy. On examination, the lower edge of the great omentum was greenish, infiltrated with pus and adherent in the neighborhood of the cœcum. The appendix was adherent to the adjacent parts, which were of a blackish color. In the appendix, about midway between the extremities, was a round opening, about a line in diameter, and in the interior were two yellow oval bodies, one a quarter, the other half an inch in length. Although these had the shape of beans, they appeared, on being broken up, to be composed of fecal matter. The inner surface of the appendix had a rough, whitish appearance, as from inflammation.

The arch of the colon was parallel with the ascending portion, being pushed aside by a soft, resonant, elastic tumor, which occupied the left side and centre of the abdomen, with the pancreas upon its superior and posterior surface. On further examination, this proved to be the wall of a sac formed by a separation of the layers of the mesentery, which usually constitute the transverse meso-colon. This contained the greater part of the small intestine, and was evidently congenital, as the mouth of it was two or three inches in diameter, and the margin smooth and rounded. The intestine itself was unchanged. The other organs were normal.

MAY 27th.—*Epithelial Cancer of the Stomach.* Dr. E. PALMER reported the case.

The patient was a gentleman, aged 59 years, who had never known what it was to be ill, before being attacked with the disease of which he died, and who was endowed with great physical and mental vigor. Early in June, 1860, he had three attacks of what he termed cholera morbus, occurring without obvious cause, in rather rapid sequence,



and which were succeeded by prostration, loss of flesh, some nausea and distress after eating, and occasional tendency to diarrhœa. As the disease advanced, he had vomiting at intervals of from ten to twenty days, not violent, nor preceded by nausea, but sudden, and followed by extreme exhaustion. An attack of vomiting invariably had for a herald a sense of pain in the middle of the shaft of the left humerus. The skin was anæmic, with a faint bronze tinge, of the tint associated by many with malignant disease. The fæces were invariably of a dark-green color. The urine was normal. No tumor could ever be detected in the abdomen. No member of the patient's family had ever died of cancer. Death occurred April 29, 1861; the duration of illness having been eleven months.

At the autopsy, the pyloric extremity of the stomach was nearly surrounded by a soft, white growth, which extended inwards two or three inches from the valve. Its margin was undermined, and somewhat elevated above the surrounding surface, but the remainder of the growth appeared to have lost a part of its substance, the base being sunken and irregular, and formed by the exposed disease, long shreds of which floated up, on placing the part in water. There was no disease elsewhere.

Dr. ELLIS remarked, that on microscopic examination, the disease was found to be composed of cells and nuclei, more or less granular, but not larger than those of cylinder epithelium. They were round, more or less elongated, some being fusiform or pointed at one end only. A few had a decided columnar arrangement. The microscopic appearances in this, as in two other cases, will warrant us in calling it an epithelial growth, the elements being the same in the three, and, he thought, as indicative of epithelial disease of the intestine as those of the cancer of the lip are of a similar formation there.

JUNE 10th.—*Insanity; Death from Pyæmia.* Dr. TYLER reported the following case.

A lady, 34 years old, married, and the mother of three or four children, the youngest of whom was seven weeks old, entered McLean Asylum, Feb. 7th. Two of her maternal uncles had died insane, and other members of her family had been deranged. She had had two or three attacks of "bilious disease" previously, not followed by insanity. On the 9th of January, she was attacked with pain and vomiting; on the 19th, she had mental disturbance, vigilance, and inability to take food. On admission she was exhausted; afterwards she had incoherence, would take no food or medicine; had occasional liquid dejections, and very abundant urine. In a week she became more quiet, and took food, but afterwards relapsed. Feb. 28th, she showed signs of sinking, and died March 2d.

At the autopsy, the skull was found to be uncommonly thick, being half an inch in the frontal and occipital regions. The brain was healthy. The arachnoid was firmly adherent, and ecchymosed in several spots. The liver was filled with pus, and weighed 6 lbs. 10 oz. The gall-bladder was gangrenous, and was completely filled by a large calculus. There was also hepatization of the lower part of the right lung. In this case, the disease of the brain was secondary, and the insanity was probably owing to a poisoned state of the blood.

JUNE 10th.—*Ophthalmia Neonatorum.* Dr. WILLIAMS asked whether gentlemen had seen many cases of ophthalmia among new-born children lately. He had met with an unusual number of cases within a few weeks.

Dr. PUTNAM asked what treatment Dr. Williams employed.

Dr. WILLIAMS said, frequent syringing with simple water, and afterwards with a solution of alum of the strength of five grains to the ounce every hour, or every half hour, and perfect cleanliness. In cases of ulceration of the cornea, he employed atropine to dilate the pupil and keep it out of harm's way, should perforation ensue. If properly treated in the beginning, the disease may be checked in a week, and is perfectly manageable; but if the case be not seen until it has gone on some time, especially if perforation have taken place, the cure will require many weeks. In chronic cases he applied the solid sulphate of copper, which he preferred to nitrate of silver.

Dr. PUTNAM said he had treated fifteen or twenty cases, without the loss of a single eye, by everting the lids, applying lightly a stick of solid nitrate of silver, and syringing with cold water.

Dr. H. J. BIGELOW was inclined to think that cleanliness was the most important element in the treatment.

Dr. WARREN said that great care should be taken in syringing, that the stream be not deflected from the eye of the patient into that of the operator, and communicate the disease, which was highly contagious.

JUNE 10th.—*Diphtheria; Severe Gastric Symptoms; Recovery.* Dr. Abbot reported a case of diphtheria occurring in a man between sixty and seventy years of age. The patient had been suffering for two or three weeks with a severe bronchitis, which had weakened him extremely, and at the time of the attack a moderate diarrhoea had set in. When the throat symptoms came on, the whole of the soft palate and tonsils were found more or less coated with an opaque, creamy, faintly yellowish deposit, soft, in some places broken and thrown off, leaving a livid red punctated surface, with the mucous follicles enlarged. The soreness on swallowing was extreme, but there was no great amount of swelling. There were no symptoms to indicate any affection of the larynx. A gargle of chlorate of potass in flax-seed tea was ordered, a grain of quinine every two hours in compound spirit of lavender, and ten minims of laudanum *pro re nata* for the diarrhoea. Beef tea and stimulants were to be freely given, according to the wishes and condition of the patient. On visiting the patient the next day, the soreness of the throat was much diminished, so as to offer no serious obstacle to deglutition. Early in the previous night, however, severe pain and soreness at the epigastrium had come on, which apparently extended up the œsophagus. Any attempt to swallow had become so distressing, that the patient had for hours abandoned the effort, the smallest quantity of liquid causing intense suffering. At my request, he made the attempt to swallow a teaspoonful of liquid. The fluid passed the fauces and pharynx without any difficulty or pain, but in a moment or two, about the time for it to reach the lower part of the œsophagus, the patient sprang up in bed in intense agony, writhing about and pressing his hands upon the lower part of the sternum and epigastrium, and groaning in a manner to indicate the extreme of suffering. It was evident the disease had passed down the œsophagus to the stomach. The thirst was extreme, but the suffering from swallowing was too great for the patient to be willing to renew the attempt. Here was a serious obstacle to treatment. Everything in the case wore the most unfavorable aspect. Small injections of beef tea, guarded by a small quantity of laudanum, however, were ordered to be administered every two hours, and the patient was left with small



hopes of improvement. In the evening it was found that after every two or three injections, there had been a defecation, which seemed to bring away all that had been thrown up. The patient had passed a miserable day, tortured with thirst and pain, but unable to swallow. Treatment continued. The next morning it was found that the soreness of the epigastrium and in the lower sternal region had abated somewhat, so that the patient had been able, with some difficulty, to swallow mild liquids. From this time the symptoms abated, and quinine was administered as it could be taken. Stimulants, however, were rejected, as there was a decided repugnance to them. Nourishment and moderate doses of quinine were the only means employed. The throat continued to be coated by the pasty deposit, which was constantly renewed for a number of days after the patient had become convalescent; in fact, traces of it could be seen up to the time when he was able to be taken some miles in an open vehicle to the country. The interesting points in the case may be thus summed up. 1st, Diphtheria in an old man debilitated by previous sickness. 2d, Severe throat symptoms, but no laryngeal symptoms. 3d, Intense œsophageal and stomach affection, shutting off the principal entrance for food and medicine. 4th, Unexpected recovery, not to be attributed in any great degree to medical treatment.

JUNE 24th.—*Scirrhus of the Rectum.* Dr. ANSON HOOKER showed the specimen. The rectum was very closely adherent to the walls of the pelvis, and was detached with much difficulty. It was thickened and scirrhus throughout its whole extent. The posterior part of the bladder was involved in the disease. The ureters were nearly obliterated. Above the seat of disease they were largely distended, especially the left one. The disease was confined to the organs within the pelvis, except very slight traces on the peritoneum within the cavity of the abdomen.

The patient was a lad, 16 or 17 years old. A year ago he was suddenly attacked with pain in the region of the umbilicus, which increased, and was followed by vomiting, indigestion, constipation and slight cough. Eight months after this, he was first seen by Dr. Hooker. He then had emaciation, and much pain, especially on defæcation. The pain, however, was never referred to the rectum (except during an examination per rectum), but always to the region of the transverse colon. The sigmoid flexure was much distended, but no obstruction could be felt in the rectum. A month before death, the obstruction in the bowels gave way, and he had free defecations; but the pain continued. Death occurred in eleven months from the first symptoms. There was no hereditary tendency to the disease.

JULY 8th.—*Ulceration of Stomach and Intestines.* Dr. ELLIS showed the specimen, which came from a man 59 years of age, who had been under the care of Dr. Bigelow, of Newton, and was seen in consultation by Dr. Ware. Many years since, he was in business in St. Thomas, where he enjoyed excellent health, and continued to, after his return to this country, until April, 1860, when he was attacked with diarrhœa, slight at first, but which increased while he was in St. Louis, in June. Nothing is known of the character of the defections at that time, but when seen afterwards, they contained blood and mucus. There was not much pain and no fever. He would sometimes be free from the trouble for six weeks. Although the appetite was good, he seemed to have partially lost his taste, and food did not appear to

nourish him. The prominent gastric symptom was a feeling of sinking. The emaciation was not very marked.

In the pyloric portion of the stomach, particularly in the smaller curvature, were many ulcers, more or less irregular in their outline, and for the most part small, the largest being, by estimate, from a third to half an inch in diameter. They presented none of the appearances usually found in chronic ulcers, but resembled those found in the intestine below. Their margins were undermined, and their bases formed apparently by the muscular coat. The mucous membrane around was not materially changed. That of the large extremity was softened by the action of the gastric juice. Scattered throughout the whole length of the large and small intestines were ulcers of various sizes, the largest and deepest occupying the upper part of the small intestine, where a number were perhaps two-thirds of an inch in diameter.

The tissues which formed the base of some of these were so thin that they were ruptured during removal, although no unusual traction was made upon them. Their margins were undermined, but did not appear materially changed.

In the large intestine, comparatively few were seen, and some of these were very superficial, ill-defined, and of a dark gray color, giving the impression that they were old and undergoing cicatrization. No change was anywhere noticed externally which indicated the existence of the disease. The contents of the small intestine were either thick blood or some material deeply stained by it. Those of the large intestine were thin, dark colored and very offensive. The other organs were healthy.

The case was considered interesting on account of the character of the ulcers in the stomach, and their resemblance to those of the intestine.

JULY 22d.—*Pregnancy complicated with Ascites.* Dr. JACKSON reported the case, which occurred in the practice of Dr. George Faulkner, of Jamaica Plain. An Irishwoman, aged 28 years, applied to Dr F., Oct. 27th, 1860. Countenance quite thin and cadaverous. Expected to be confined in two months. Very much oppressed with ascites of six weeks duration; lower extremities œdematous. She had been in this country about six years; pale and sickly in appearance, but had never had any severe sickness. Married nearly one year. It was very difficult or impossible to determine the period of her pregnancy; but, as she seemed to be failing, it was decided to bring on premature labor. On the 18th of November, a Simpson's sound was passed a little way into the uterus, and swept around. On the 19th, as there was no change, an elastic bougie was passed as far as it would go, and left to come away by the movements of the patient. On the 20th there was still no change, and the same was repeated. At 2, A.M., on the 21st, labor began, and after fifteen hours the child was born. The labia were enormously swollen, and literally as hard as marble, so that the head had to pass behind them, but the perineum was not torn wholly across. The child appeared to have reached nearly full time, and is now (May 25th) living. The mother was more comfortable for a day or two, but died comatose, November 27th, six days after delivery. The abortion seemed not to give any shock, or to add at all to her discomfort.

The liver, which was very markedly granulated, and the uterus



were brought in a fresh state to Dr. D. H. Storer, by Dr. Robinson of Jamaica Plain, and the following notes were taken by Dr. J. :— Uterus seven inches in length externally in a straight line, and including the os tinæ ; maximum width,  $4\frac{1}{2}$  inches, and thickness  $1\frac{1}{4}$  inch. Site of the placenta very marked upon the anterior surface of the body. The organ was shown to the Society.

JULY 22d.—*Fibrous Disease of the Ovary.* Dr. JACKSON showed the specimen, which he had received from Dr. S. H. Carney, Physician to the State Almshouse, at Bridgewater. It was taken recently from an old insane woman, of whom very little was known. She had never had children, and her bodily health had been good until within a few years. Every organ was examined, but no other disease was found, excepting that of the ovary, which lay well down in the pelvis, and without any adhesions or sign of inflammation about it. It formed a pretty regularly oval mass, four inches in length, three inches in width, and two inches in thickness. Its structure was uniformly a fine (i. e. not coarse) fibro-cellular, and as dense as any scirrhus. Microscopically, Dr. Ellis found “nothing but fibrous tissue.” The upper extremity of the cervix uteri is obliterated to a small extent, but firmly ; as, Dr. J. remarked, it very frequently is in old women.

In regard to the nature of the case, Dr. J. is inclined to regard it as one of simple fibrous development, and not a scirrhus affection, which is very rare in the ovary, though other forms of malignant disease are not so. He had examined a case many years ago, in which one of the ovaries formed a very large tumor, of which one half was encysted, and the remainder formed a dense fibrous mass, as in the present specimen. There is also, he remarked, an ovary in the Society's Cabinet, taken from a patient who was extensively cancerous. It is of a regularly oval form, of the size of a small musk-melon, and resembles the above specimen, so far as we can judge of one that has been in spirit for several years.

JULY 22d.—*Enlarged Male Breast.* Dr. JACKSON showed a cast in plaster, of the external appearances, and reported the case. A healthy-looking sailor, aged 22, was seen at the Hospital by Dr. Gay. The breast was about as large as that of a girl 14 years of age, firm to the feel, gently elastic, and with a well-formed nipple, not painful, and, so far as he knew, not connected with any external injury. It had been enlarging for nine years. The patient was seen but once, and the cast was then taken.

In connection with this case, Dr. J. alluded to another of true scirrhus of the mammary gland, that was operated upon not long ago at the Hospital by Dr. Gay. An interesting complication of the operation was the puncture of the pleural cavity, caused by a sudden and violent start of the patient ; interesting, practically and pathologically, from the fact that it was scarcely followed by a symptom.

### Bibliographical Notices.

*Hints on Health, for the Use of Volunteers.* By JOHN ORDRONAU, Professor of Medical Jurisprudence in Columbia College, New York. Appleton & Co., 443 Broadway. 1861. Pp. 142.

This little volume does not purport to be more than a manual on

the general principles of military hygiene, for the use of both officers and men. "Its brevity," as is stated in the preface, "its omission of all scientific discussion, and of many statistical tables, sufficiently indicate that the mission it is designed to perform is eminently *suggestive*, and not in any sense *authoritative*."

The author has managed to compress much into a small space, and yet has succeeded in giving us one of the most instructive and readable books on this subject that we have seen.

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## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

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BOSTON: JULY 31, 1861.

FREE CITY HOSPITAL.—We have been favored, through the politeness of J. C. J. Brown, Esq., of the Common Council, with a copy of the Report of the Joint Standing Committee of the City Government on the proposed Free City Hospital. The Report is an extremely interesting and able one, and does great credit to the Committee. It is evident that they have very thoroughly and conscientiously examined the subject committed to them, and they have come to the conclusion that such an Institution is greatly needed. We have long held this opinion, having had peculiar opportunities for coming to such a conclusion. The Committee had it in charge to report upon the plans submitted to the Government for suitable buildings for the purpose, and after long deliberation, and with acknowledged hesitation and diffidence, finally decided to recommend the plans submitted by Gridley J. F. Bryant, Esq., as, on the whole, meeting the desired object, in point of economy, convenience of arrangement and architectural fitness and beauty, better than any other. They speak in high terms of commendation of other plans submitted to them. Fourteen were offered, of various degrees of merit. Of these, the first premium, of two hundred dollars, was awarded to Mr. Bryant's; the second, of one hundred dollars, to Mr. Ropes's. A third plan, by Mr. Boyden, assisted by Dr. John Green, of this city, is very highly complimented by the Committee, and a gratuity of fifty dollars was voted by them as a recognition of its merits. Other designs are specially mentioned in favorable terms, and it is evident that the selection of that which would most completely serve the purpose in view, was by no means an easy task. The Report is accompanied by plans by the architect of the buildings and the surrounding grounds, as well as an exterior view of the whole. The institution promises to answer admirably the end in view, and to be a great ornament to the city. The lot in which it is proposed to place it is 630 feet long by 451 feet wide, or an area of nearly seven acres, bounded by Harrison Avenue, Springfield, Albany and Concord streets. We have not space to go at length into the details of the plan, but we copy from the statement of the architect a description of the general arrangement and design of the buildings.

"The design embraces six separate pavilions radiating from a central structure, but entirely disconnected with said structure excepting by corridors or walks, each of the quadrant of a circle in form. The pavilions are intended to be so grouped with reference to the central building as to be located in parallel



rows of two pavilions each, on three sides of the central building, at the distance of eighty feet therefrom. The ends of the pairs of pavilions face three of the four streets which surround the site, and are located one hundred feet back from the margin of the site or side of the street against which they face. The principal facade of the design which comprises two of the pavilions and the central building is designed to be located one hundred feet back of the margin of the site, on the Springfield side thereof, the centre building being however located one hundred and forty feet back from the said street.

"Four of the six pavilions will accommodate from forty to fifty patients each, and are to measure one hundred and seventeen feet in length and twenty-eight in width. The remaining two pavilions are intended for twenty beds each, and are to measure eighty-nine feet in length and twenty-eight feet in width. All six of the pavilions are of three finished stories in height, to wit: basement and two dormitory stories. The central building is proposed to be sixty feet square, and is also three stories in height, arranged exclusively for the officers' apartments and other conveniences requisite for the care-taking and the supervision of the proposed institution.

"The pavilions are to be so located as to be one hundred feet apart in the clear, and at an average distance of one hundred feet from the central building, thus securing the most ample space for light and ventilation to and between the several buildings composing the complete design. The arrangement and position of the buildings, in reference to each other, render the erection of any two of the pavilions and the central building, or even two of the pavilions without the centre building, a complete hospital inside, avoiding the necessity of erecting a building of more than the requisite capacity at the present time.

"But while the sanitary arrangements of the proposed structure have thus engaged, as is most fit, the most careful thought and attention which it has been in my power to bestow, I have not allowed myself to be insensible to the rare opportunity presented in this building for external architectural effect. The very necessities of the plan, as described above, are of themselves the sources of some of the highest architectural beauties. A central building with a portico surmounted by a bold and picturesque dome, and connected laterally by means of open colonnades, with advanced pavilions of a corresponding style of architecture, presents in its own absolute requisitions the groundwork for artistic effect of the highest order, and such as in buildings intended for other and different purposes, great additional outlay and serious inconvenience of arrangement have sometimes been submitted to in order to attain. The primary and secondary masses of light and shade in the composition are, by this arrangement, made to glide into each other by the most gradual transitions of effect, while the open screens of double columns in the corridors curve round into different relations of position and shadow with each footstep of the advancing spectator."

"The particular style chosen is the modern style of *Renaissance* architecture, a style which, from its own inherent beauties, not less than from its almost universal susceptibility of adaptation to structures of a dignified and monumental character, stands confessedly at the head of all the forms of modern secular architecture in the chief capitals of the world."

WE publish below another letter from Dr. Martin, who asks it of us as an act of justice. It does not alter our view of the subject in controversy at all. Our only object has been to show that our State has not been culpably negligent in the matter of vaccinating the troops; this we think we have shown. The offer of gratuitous vaccination was made after the three months troops had left. Dr. Martin, for reasons satisfactory to himself, declined furnishing vaccine for the soldiers then on the islands in the harbor. The Medical Commission provided for the vaccination of all unvaccinated recruits after the second of May. This is the sum of the matter, and we think the State stands exonerated. The tone of Dr. Martin's letter of July 18th, implying ignorance on our part of the true state of the case, to say no-

thing of its insinuations of a stupid admiration of everything done in Boston simply because it was done here, called forth our remarks in reply. We think we do Dr. M. more than justice in printing the present letter. Our readers, we hope, will pardon us for occupying so large a space with what has got to be so much of a personal matter. We can only refer them back, if they are inclined to take the trouble, to our issue of July 18th, for our reply to anything which these few words leave unanswered.

FORTRESS MONROE, VA., JULY 22, 1861.

MESSRS. EDITORS,—Your Journal of the 18th instant is at hand with my letter of the 10th, and your comments thereon. I do not wish to continue the controversy, but certain portions of your commentary demand notice. I have nothing to do with what the *Medical Times* has said about this matter, am not in any way responsible for its comments, although on reference to the article in that Journal (June 22d), which has given umbrage, I fail to see anything which ought to call forth so much feeling. You allude to frequent reflections in the public papers on the neglect, inefficiency, &c. &c., of Massachusetts functionaries and those appointed by them. A good deal might be said on such subjects, but that is not my purpose now; enough, that no statement that Massachusetts regiments were suffering from small-pox, &c. &c., was ever published on my authority. I have said that the arrangements for vaccinating Massachusetts troops were for a long time totally insufficient, and I say so still. You have not disproved it, and *cannot*. In regard to my, so often mentioned, offer to Gov. Andrew, to vaccinate troops gratuitously, I have as yet discovered no reason to be ashamed of the motives which led me to make that offer, nor do I admit your right to asperse them because, when my offer was rejected, a request that I would supply vaccine lymph gratuitously for an unlimited number of troops was declined by me. I might have been, and *was* willing to furnish *materiel* for my own vaccinations, but not in such quantities as would have been necessary for the fulfilment of such a request. One word more, and one only, about this offer. It *ought* to have been accepted, and probably would have been, if made to the full and able "Medical Commission," instead of to the limited body to which it was referred, not by me, but by Gov. Andrew. I shall say no more of my offer, or of the dual "staff" which declined it. The history of the medical staff of the government of Massachusetts, the executive ability and disinterestedness of its members, ought to be sufficiently known, at any rate to *your* readers, for you have told them much of all these things. I do not care to discuss the *now* very unimportant matter further. Let me say that I seek no quarrel with Massachusetts functionaries, military, medical or executive; I have made no inquiries whatever in regard to troops from that State, nor should I have made any, among the three months regiments who are (or rather *were*) the only ones here,\* even if I had concluded to continue the inspection. If regiments enlisted for a longer time had come to this post, I should have examined them. If I found them properly protected, my statement to that effect would have been freely given, and would have been proof of the efficiency of Massachusetts management; if I had found them *not* to have been properly vaccinated, you will hardly deny that a discovery and remedy of the deficiency would have been beneficial. The fact, however, is, that the inspection will *not* be continued by me. When I had finished my work at Camp Butler (some eight miles from this post), I concluded that unless a full and satisfactory arrangement could be made with the Secretary of War, I could not go on. The labor of thoroughly making the inspection and registration was very great, and far from agreeable; and although I was willing, nay happy, to suffer considerable loss, I could not continue and complete so arduous a task, involving the large consumption of *materiel* of, to me, absolute pecuniary value, on the very meagre salary which Gen. Butler or even the Surgeon General has the power to

\* I mean, of course, if there had been no urgent reason. The unexpired time of these regiments was so short, that, as in the case of the 1st Vermont Regiment at Camp Butler, I should not have considered an inspection necessary unless variolous disease had shown itself in such regiments or their immediate vicinity. In Volunteer regiments, having so short a time to serve, there would be almost insuperable objections made by the men, in view of the very short remainder of their term of enlistment.



grant. When the application was made, I knew very well that it would not be favorably received, and accordingly was not at all disappointed when, a day or two since, I was informed that such a contract as I desired would not be endorsed by Mr. Cameron.

Previously to my departure from Boston, on the 20th of last month, I received a letter which led me to believe that smallpox had broken out in some, *if not all*, of the regiments in and about Fortress Monroe and Newport's News. Having no reason to doubt the correctness of this statement, and knowing that several Massachusetts regiments were there, I may, and I believe I did, at your office, mention it as a proof of the probable soundness of some apprehensions which I had expressed, but no statement to that effect, that I am aware of, *certainly* none, with my authority, has been published. I have given you an accurate and pretty full account of what information I have obtained here. Of the condition of the Massachusetts regiments in regard to vaccination, I know absolutely no more than I did when I left Boston. None of those regiments fell under the inspection which I made, and since my return to the Fortress I have made no inquiry regarding them. I do not *know* whether there have been any cases of varioloid or any other contagious disease among them, nor shall I, now that my inspection has ceased, take any pains to be wiser in the matter. It is my *belief* that there have been *no* variolous cases among them; but I may also state that, previously to my visit to Newport's News, I was not aware that there were any such cases *there*, and that even now there are very few who know it here, and many who have been told that such has been the case seem to doubt. This, however, is not material, and is only mentioned to show that I do not wish to make any "blaze and smoke" about Massachusetts mismanagement—do not wish to show that regiments from that State have (the three months ones) not been properly vaccinated, for that is admitted. Nor would I, now that my "occupation's gone," make the slightest effort to obtain evidence that such omission had been followed up by its natural consequences, even if such evidence were within easy reach; at any rate, I would do so only if necessary for personal vindication, not as a ground of invective.

What I *do* wish and hope is, that, somehow or other, the troops, not only from New England but elsewhere, may be as thoroughly protected from smallpox as possible. However fortunately they may have escaped hitherto, it may be fully and confidently expected, that just so far as such protection has been withheld from troops, those troops will, on the approach of winter, suffer from what Gen. Butler has truly called the "scourge of armies."

I pray you excuse the length of this, necessarily, very hastily written letter. Your editorial of the 18th was very unjustly severe. I am not responsible for remarks made in the public press, nor for the exaggerated statements of others, nor for the strictures of the *Medical Times*, or the self-gratulation, at the expense of Massachusetts, of the Rhode Islanders. I have endeavored to state frankly the position I have held, what I have done, and how. In order to do this, I have trespassed unreasonably on your space. I assure you I do not wish to pursue the controversy, nor shall I do so unless again constrained by ungenerous and unjust comments in your pages or elsewhere.

HENRY A. MARTIN.

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MEASLES AMONG THE VOLUNTEER TROOPS.—The following is an extract from a letter from Dr. C. B. White, in the N. Y. *Medical Times* of July 20th, dated Fortress Monroe, July 12th:—

"The First Regt. Vermont Volunteers were unfortunate; while on their passage hither the measles began to prevail, and after their arrival the disease spread rapidly among them. This occurred about the middle of May. This invasion of rubeola gave rise to the ridiculous rumors of the prevalence of smallpox among our troops. There have been no authenticated cases of variola in this division of the army. Dr. Eisenlord, of the Seventh N. Y. Vols. (Col. Bendix), had two cases about June 20th, which he at first thought to be varioloid. The



First Regiment Vermont Volunteers had, during the last month, 121 cases of measles alone: all but two of which, however, convalesced satisfactorily. These two lapsed into a typhoid condition and died.

THE GREAT EXHIBITION OF 1862.—Her Majesty's Commissioners for the International Exhibition of 1862 have requested the following gentlemen to act as members of a Committee in connection with Class XVII. (Surgical Instruments and Appliances) of the approaching Exhibition:—Mr. William Lawrence, F.R.C.S.; Mr. Joseph Henry Green, F.R.C.S.; Mr. Jas. Moncrieff Arnott, F.R.C.S.; Mr. John Flint South, F.R.C.S.; Mr. Cæsar Henry Hawkins, F.R.C.S.; Mr. James Luke, F.R.C.S.; Mr. F. Seymour Haden, F.R.C.S.; and Mr. James Paget, F.R.C.S.—*London Lancet*.

A SOMNAMBULIST FINED FOR PRACTISING MEDICINE.—The tribunal of Pro vins has condemned a somnambulist for having illegally practised medicine, to a fine of fourteen times ten francs, for having fourteen times infringed upon the rights of medicine; to pay the expenses of the process; and to pay two hundred francs damages to the local Society of the doctors of the *arrondissement* of Pro vins, which had acted as prosecutor on the occasion. There are some things, at all events, which we may safely say, with the sentimental traveller, that "they manage better in France."—*London Med. Times and Gaz.*

THE PHARMACOPŒIA OF 1860.—It is stated, in the American Journal of Pharmacy, that the Committee appointed to revise the National Pharmacopœia are busily engaged upon the work, but that it will not probably be ready for publication till some time in 1862.

#### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, July 27th, 1861.

##### DEATHS.

	Males.	Females	Total.
Deaths during the week, . . . . .	57	46	103.
Average Mortality of the corresponding weeks of the ten years, 1851-1861, . . . . .	44.2	41.0	85.2
Average corrected to increased population, . . . . .	..	..	95.09
Deaths of persons above 90, . . . . .	..	..	..

##### Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
14	40	0	5	2	0	4	2	0

##### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

Mean height of Barometer, . . . . .	30.011	Highest point of Thermometer, . . . . .	78.0
Highest point of Barometer, . . . . .	30.200	Lowest point of Thermometer, . . . . .	50.0
Lowest point of Barometer, . . . . .	29.536	General direction of Wind, . . . . .	E. N. E.
Mean Temperature, . . . . .	67.0	Am't of Rain (in inches) . . . . .	..

☞ In order to avoid the inconvenience of having twenty-five numbers in the 64th volume of the Journal, and twenty-seven in the 65th which would be unavoidable in following out our usual plan of commencing a new volume on the first Thursday in August, the present number (for Aug. 1) is included in Vol. 64, and its date changed to July 31st.

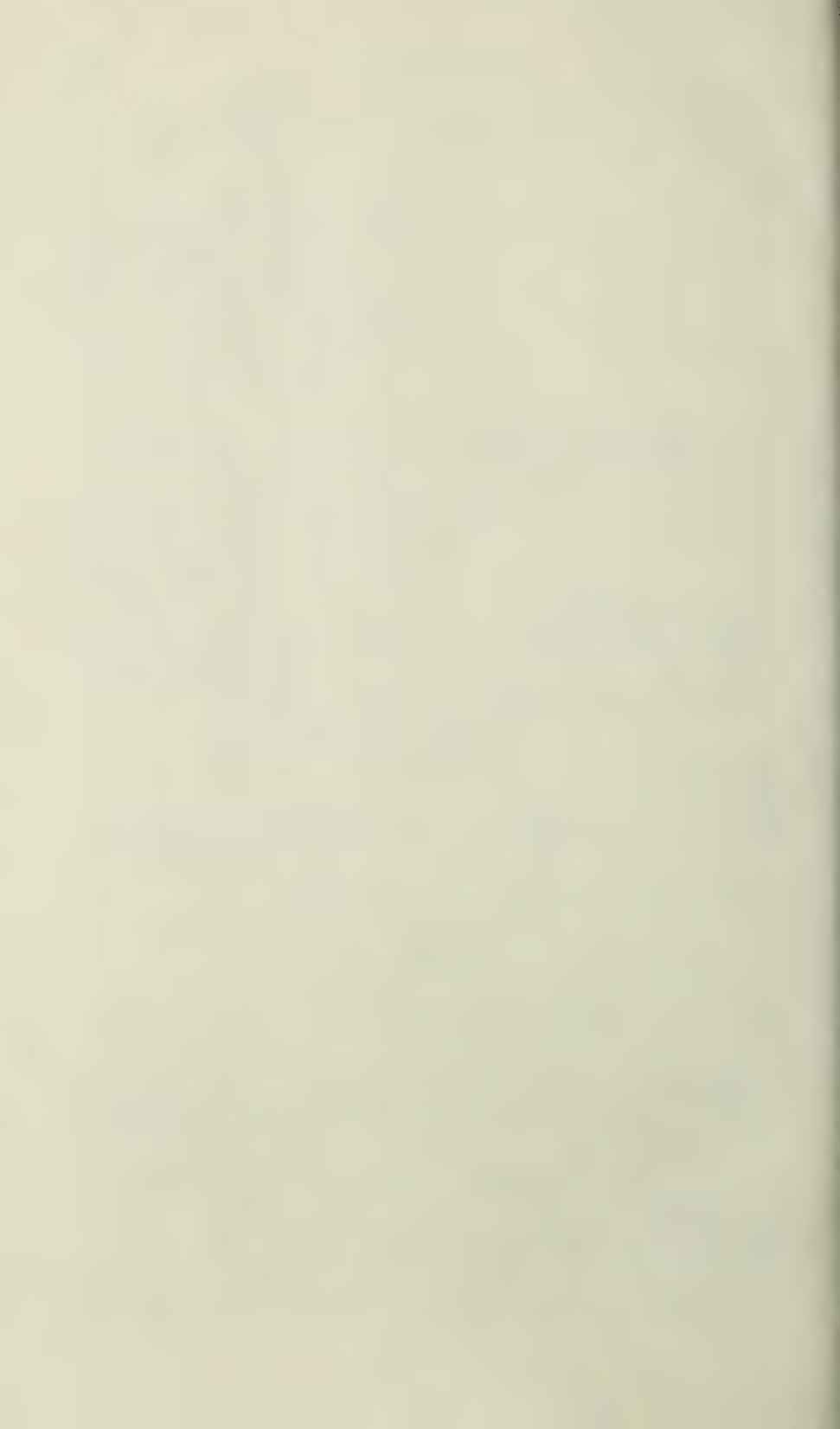
PAMPHLETS RECEIVED.—Compound, Comminuted and Complicated Fracture of the Upper End of the Tibia. By Alden March, M.D., Albany.—Report of a Free City Hospital in Boston.

DEATHS IN BOSTON for the week ending Saturday noon, July 27th, 103. Males, 57—Females, 46.—Abscess, 1—accidents, 3—inflammation of the bowels, 1—congestion of the brain, 1—disease of the brain, 3—cholera infection, 40—consumption, 14—convulsions, 1—cyanosis, 1—lethargy, 1—diarrhoea, 1—tr. psy, 2—tr. psy of the brain, 1—drowned, 2—dysentery, 4—remittent fever, 1—scarlet fever, 5—typhoid fever, 2—asthma, 2—fissure of the heart, 3—hemiplegia, 1—infantile disease, 2—inflammation of the lungs, 2—marasmus, 2—spina bilida, 1—teething, 2—unknown, 4.

Under 5 years of age, 65—between 5 and 20 years, 10—between 20 and 40 years, 15—between 40 and 60 years, 10—above 60 years, 3. Born in the United States, 85—Ireland, 14—other places, 4.















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